

**INTERROGATORY RESPONSE - CCC-1**

**CCC-1**

**EXHIBIT REFERENCE:**

**N/A**

**SUBJECT AREA: Covid-19**

a) Hydro Ottawa filed an update on May 5, 2020. Does Hydro Ottawa expect to file any further updates regarding its evidence? When does Hydro Ottawa expect to provide a detailed assessment of the impacts of the COVID-19 pandemic on Hydro Ottawa's Application?

**RESPONSE:**

a) No, Hydro Ottawa does not expect to file another update to its 2021-2025 Custom IR Application. Hydro Ottawa is not able to provide an update for the impact of the COVID-19 pandemic. At this point, there is not enough information, analysis, or understanding of the potential impacts of the pandemic to accurately forecast what the impact on the 2021-2025 timeframe may be. It is expected that any impact will mainly be with respect to 2020 results. The utility's expectations are that the forecasts for 2021-2025 will not materially change. The Earnings Sharing Mechanism, Capital Variance Account, and Lost Revenue Adjustment Mechanism will mitigate the impact on customers over the 2021-2025 period. In addition, the OEB has established three deferral accounts to deal with the incremental impacts in 2020 associated with the impacts of COVID-19.<sup>1</sup>

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<sup>1</sup> <https://www.oeb.ca/sites/default/files/OEBLtr-Accounting-Order-COVID-19-Emergency-20200325.pdf>.

**INTERROGATORY RESPONSE - CCC-2**

**CCC-2**

EXHIBIT REFERENCE:

**(Ex. 1-1-5, p. 8)**

SUBJECT AREA: Distribution System Plan

Please file the Integrated Regional Resource Plan (IRRP) cited in the evidence. Hydro Ottawa has listed the required projects arising out of that plan. The evidence also states that “these investments will remain subject to change through the finalization of the IRRP and subsequent Regional Infrastructure Plan processes”. To what extent are these projects subject to change? Please explain.

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**RESPONSE:**

At the time Hydro Ottawa filed this Application, the IRRP was not finalized. The IRRP was published on March 4, 2020. The recommendations for the evaluated needs for the last IRRP did not change from the plans presented on Exhibit 2-4-3: Distribution System Plan, Table 8.5 - 2021-2025 Expenditures by Investment Category.

The Regional Infrastructure Plan (“RIP”) cycle will be starting in May 2020 with an expected completion date of November 2020. It is the last stage of the Regional Planning process. Through the RIP cycle, needs identified through the previous stages of the planning process will be confirmed and a more detailed assessment of the wire alternatives will be conducted. Therefore, it is expected that the plans identified through the IRRP will be refined.

**INTERROGATORY RESPONSE - CCC-3**

**CCC-3**

EXHIBIT REFERENCE:

**(Ex. 1-1-8, p. 3)**

SUBJECT AREA: Annual Reporting

Please provide the 2019 Electricity Utility Scorecard.

**RESPONSE:**

The 2019 Electricity Utility Scorecards have not yet been finalized and released by the OEB. The PEG benchmarking update calculations, which calculate the Total Cost per Customer, Total Cost per Kilometre of Line and Efficiency Assessment, are typically available in July or August. Following that, the annual distributor Scorecards and accompanying Management Discussion and Analysis are normally made public at the end of September, both on the distributor's website and the OEB's website.

However, the 2019 reporting deadline of April 30, 2020 was extended by the OEB until June 1, 2020 in light of the impacts of the COVID-19 pandemic. Given that most of the information submitted in the annual reporting is presented on the Electricity Utility Scorecard, it remains uncertain as to whether this extension could further delay the publication of the 2019 scorecard beyond September.

**INTERROGATORY RESPONSE - CCC-4**

**CCC-4**

EXHIBIT REFERENCE:

**(Ex. 1-1-8, p. 3)**

SUBJECT AREA: Productivity

Hydro Ottawa has pointed to productivity gains through cost containment and increased automation of business processes as a noteworthy performance outcome from 2016-2020. Please provide all documentation regarding the productivity gains achieved during the 2016-2020 period.

**RESPONSE:**

Please see the following for information on productivity gains achieved during the 2016-2020 period:

- Attachments 1-1-10(A) through (C) – annual summaries for 2016, 2017, and 2018 of Hydro Ottawa initiatives aligned with Renewed Regulatory Framework outcomes;
- Exhibit 1-1-13: Productivity and Continuous Improvement Initiatives;
- Attachments 1-3-3(A) through (C) – Hydro Ottawa annual reports;
- UPDATED Exhibit 4-1-3: Operations, Maintenance and Administration Program Costs;
- UPDATED Exhibit 4-1-4: Operations, Maintenance and Administration Cost Drivers and Program Variance Analysis;
- Hydro Ottawa's response to interrogatory OEB-47.

**INTERROGATORY RESPONSE - CCC-5**

**CCC-5**

EXHIBIT REFERENCE:

**(Ex.1-1-8, p. 4)**

SUBJECT AREA: Productivity

Please provide all projections of productivity expected during the rate plan period referred to.

**RESPONSE:**

Please see the response to interrogatory OEB-47.

**INTERROGATORY RESPONSE - CCC-6**

**CCC-6**

EXHIBIT REFERENCE:

**(Ex. 1-1-8, p. 3)**

SUBJECT AREA: Productivity

For each of the items listed as "performance outcomes" please provide the level of savings achieved. Please include all assumptions

**RESPONSE:**

Please see the response to interrogatory OEB-47.

**INTERROGATORY RESPONSE - CCC-7**

**CCC-7**

EXHIBIT REFERENCE:

**(Ex. 1-1-8, p. 5)**

SUBJECT AREA: Corporate Governance

Please provide copies of all materials presented to the Hydro Ottawa Board of Directors and the Holding Company Board of Directors related to this Application.

**RESPONSE:**

Please refer to the response to interrogatory SEC-2 and Attachment SEC-2(A): Materials Provided to the Hydro Ottawa Limited Board of Directors.

**INTERROGATORY RESPONSE - CCC-8**

**CCC-8**

EXHIBIT REFERENCE:

**(Ex. 1-1-8, p. 14 and Ex. 1-1-12)**

SUBJECT AREA: Benchmarking

For each of the Benchmarking Studies listed:

a) Please provide the Terms of Reference

b) Please indicate if the study was subject to an RFP Process. If it was not please indicate why.

c) Please provide the total cost of the study and indicate how those costs will be recovered.

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**RESPONSE:**

a) The Terms of Reference for the four benchmarking studies included in Exhibit 1-1-12: Benchmarking are appended to different interrogatory responses, as follows:

- Attachment CCC-8(A): Executed Agreement for Total Cost and Reliability Econometric Benchmarking Study
- Attachment SEC-19(A): Executed Agreement for a Unit Cost Benchmarking Study
- Attachment SEC-23(A): IT Budget Assessment Benchmark - Statement of Work
- Attachment SEC-24(A): Project Initiation Form - Total Compensation Program Review

- 1 b) Table A outlines whether or not the consultant retained by Hydro Ottawa to perform the  
2 corresponding benchmarking study was engaged through a Request for Proposals  
3 (“RFP”) process, and where applicable, provides accompanying rationale.

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5 **Table A – Process for Retaining Benchmarking Study External Consultants**

Benchmarking Review	External Consultant	RFP (Yes/No)	Rationale (No RFP)
Econometric Benchmarking Study of Hydro Ottawa’s Total Cost and Reliability	Clearspring Energy Advisors	No	<ul style="list-style-type: none"> <li>• Consultant was previously retained through RFP and provided high-quality product and service</li> <li>• Consultant is widely regarded as leading expert in niche expertise area</li> <li>• Consultant provides benchmarking services to other large Ontario LDCs</li> </ul>
Unit Costs Benchmarking Study	UMS Group	Yes	N/A
IT Budget Assessment Benchmark	Gartner	No	<ul style="list-style-type: none"> <li>• Pre-existing Hydro Ottawa membership in consultant’s services</li> <li>• Consultant is widely regarded as leading expert in niche expertise area</li> <li>• Consultant provides benchmarking services to other large Ontario LDCs</li> </ul>
2019 Market Benchmarking	Mercer Canada	No	<ul style="list-style-type: none"> <li>• Pre-existing arrangement for health and benefit services from consultant</li> <li>• Consultant is widely regarded as leading expert in niche expertise area</li> <li>• Consultant provides benchmarking services to other large Ontario LDCs</li> </ul>

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- 7 c) Table B below identifies the total budgeted cost for each benchmarking study. The costs  
8 for each study will be included in the first Test Year of Hydro Ottawa’s rate term (2021)  
9 and then amortized over the 2021-2025 period. Please see Exhibit 4-2-3: One-Time  
10 Costs and UPDATED Exhibit 4-2-4: Regulatory Costs for further information.

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**Table B – Total Costs for Benchmarking Studies**

Benchmarking Review	External Consultant	Total Cost (Budgeted)
Econometric Benchmarking Study of Hydro Ottawa's Total Cost and Reliability	Clearspring Energy Advisors	\$232,600
Unit Costs Benchmarking Study	UMS Group	\$173,890
IT Budget Assessment Benchmark	Gartner	\$127,500
2019 Market Benchmarking	Mercer Canada	\$33,000

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THIS AGREEMENT dated the 7<sup>th</sup> day of March 2019. ("Effective Date")

BETWEEN:

HYDRO OTTAWA LIMITED, hereinafter called the "Hydro Ottawa"

AND:

CLEARSPRING ENERGY ADVISORS, LLC, hereinafter called the "Contractor"

**WHEREAS** Hydro Ottawa requires the services of the Contractor to complete an econometric benchmarking study that will serve as a key input for Hydro Ottawa's 2021-2025 Custom Incentive Rate-setting (CIR) application to the Ontario Energy Board;

**AND WHEREAS** the Contractor has the requisite experience and skill to provide the services and the Contractor has represented that it can provide such consulting services, as more fully set out in Schedule A in accordance with the terms and conditions hereinafter set forth;

**NOW THEREFORE** in consideration of the mutual covenants, terms and conditions contained herein and for other good and valuable consideration, the receipt and sufficiency of which is hereby irrevocably acknowledged, the parties hereto agree as follows:

#### 1. Definitions

"Affiliate" means, with respect to any party,

- (i) any legal entity of which the securities or other ownership interests representing fifty per cent (50%) or more of the equity or fifty percent (50%) or more of the ordinary voting power or fifty percent (50%) or more of the general partnership interest are, at the time such determination is being made, owned, Controlled or held, directly or indirectly, by such legal entity, or
- (ii) any legal entity which, at the time such determination is being made, is Controlling or under common Control with, such legal entity. As used herein, the term "Control", whether used as a noun or verb, refers to the possession, directly or indirectly, of the power to direct, or cause the direction of, the management or policies of a legal entity, whether through the ownership of voting securities, by contract or otherwise.

"Agreement" means these Terms and Condition and all recitals, schedules and appendices thereto, as they may be amended, revised, restated or replaced at any time and from time to time.

"Applicable Law" means any domestic or foreign law, rule, statute, subordinate legislation, regulation, by-law, order, ordinance, protocol, code, guideline, treaty, policy, notice, direction or judicial, arbitral, administrative, ministerial or departmental judgment, award, decree, treaty, directive, or other requirement or guideline published or in force at any time during the Term which applies to or is otherwise intended to govern or regulate any Person, property, transaction, activity, event or other matter, including any rule, order, judgment, directive or other requirement or guideline issued by any Government Authority.

"Business Days" and "Normal Business Hours" means the hours from 07:00 to 17:00. Eastern Time, on the weekdays from Monday to Friday inclusive with the exception of statutory holidays observed by Hydro Ottawa.

"Contractor" means party in contract with Hydro Ottawa or the duly authorized representative. This shall include the Contractor, its officers, directors, employees, agents, assigns, and subcontractors.

"Government Authority" means any government, parliament, legislature or any regulatory authority, agency, commission or a board of any government, parliament or legislature, or any political subdivision thereof, or any court or, without limitation to the foregoing, any other law, regulation or rule making entity or any person acting under the authority of any of the foregoing or any other authority charged with the administration or enforcement of laws, including the Privacy Commissioner of Canada and the Information and Privacy Commissioner of Ontario.

"Handle" means to access, receive, collect, use, store, process, record, disclose, transfer, retain, dispose of, destroy, manage or otherwise handle.

"Hydro Ottawa" and "HOL" mean Hydro Ottawa Limited.

"Industry Standards" includes, but are not limited to

- (a) the provision of any and all labour, supplies, equipment and other goods or services that are necessary and can reasonably be understood or inferred to be included within the scope of the Agreement or customarily furnished by Persons providing Services of the type provided hereunder in similar situations in Ontario and;
- (b) Adherence to commonly accepted norms of ethical business practices.

"Person" means any individual, partnership, franchise holder, association, corporation or any Government Authority and their respective employees, agents or representatives.

"Personal Information" means information about an identifiable individual, including without limitation any information defined or deemed as such pursuant to any Applicable Laws or regulations related to privacy or data protection, that is transferred to, collected or compiled by, or otherwise under the control or custody of the Contractor and that (i) is about customers or employees of or Contractors to the Hydro Ottawa or its Affiliates or (ii) is otherwise held by the Contractor for or on behalf of Hydro Ottawa or its Affiliates.

"Privacy Laws" means all federal, provincial, state, municipal or other applicable statutes, laws or regulations of any Government Authority in any jurisdiction governing the Handling of information about an identifiable individual, including the Personal Information and Protection of Electronic Documents Act, S.C. 2005, c. 5 ("PIPEDA") and equivalent provincial and foreign legislation.

"Representatives" in reference to party, means the party's directors, officers, employees, agents and contractors, the party's Affiliates, and all such Affiliates' respective directors, officers, employees, agents and contractors.

"Security Breach" means any breach of Section 19 that Hydro Ottawa determines has caused or may cause unauthorized Handling of Personal Information or Hydro Ottawa Confidential Information.

"Services" means the requested services set out in Schedule A.

## **2. Priority of Documents**

The documents specified below form part of and are incorporated into the Agreement. If there is a discrepancy between the wording of these Terms and Conditions and the wording of any document, which appears on the list, the wording of these Terms and Conditions shall prevail. If there is a discrepancy between the wording of any documents which appear on the list, the

wording of the document which first appears on the list shall prevail over the wording of any document which subsequently appears on the list:

- a) These General Terms and Conditions
- b) Schedule A – Statement of Work
- c) Schedule B – Cost Summary Sheet

### 3. Contracting Authority

The Contract Authority is:

Farah Butt, Senior Procurement Agent  
Hydro Ottawa Limited  
3025 Albion Road, North, P.O. Box 8700,  
Ottawa, ON K1G 3S4

Telephone: (613) 738-5499 ext. 2554  
Email: [farahbutt@hydroottawa.com](mailto:farahbutt@hydroottawa.com)

The Contract Authority is responsible for the management of this Agreement. Only changes to this Agreement that are authorized in writing by the Contract Authority are binding on Hydro Ottawa.

### 4. Hydro Ottawa Project Authority

The Hydro Ottawa Project Authority is:

Gregory Van Dusen, Director, Regulatory Affairs  
3025 Albion Road, North, P.O. Box 8700  
Ottawa, ON K1G 3S4

Telephone: (613) 738-5499 ext. 7472  
Email: [gregoryvandusen@hydroottawa.com](mailto:gregoryvandusen@hydroottawa.com)

The Hydro Ottawa Project Authority is responsible for all matters concerning the technical content of the Services under this Agreement. Any proposed changes to the scope of the Services must be discussed with the Hydro Ottawa Project Authority, but only the Contract Authority has the authority to amend this Agreement.

### 5. Contractor's Contact

The Contractor Contact is:

Steve Fenrick, Principal Consultant  
Clearspring Energy Advisors, LLC  
1050 Regent St., Suite L3  
Madison, WI 5315

Telephone: (608) 442-8668  
Email: [steve.fenrick@clearspring.com](mailto:steve.fenrick@clearspring.com)

## 6. Compliance with Applicable Laws

- (1) The Contractor shall, at its sole expense, obtain and maintain all permits, licenses and approvals required by Applicable Law or Governmental Authority to conduct its business generally and to perform its duties under this Agreement and to undertake and complete the Services. The Contractor and its Representatives shall comply with all Applicable Law, in undertaking and completing the Services.
- (2) Where there is a conflict between any provisions of the above-mentioned authorities, the most stringent provision will govern.

## 7. Term

- (1) Subject to the provisions for termination as hereinafter provided, the term of this Agreement shall commence on the Effective Date and shall terminate December 31, 2020 (the "Initial Term"), unless terminated earlier in accordance with the terms herein or otherwise extended by the parties.
- (2) Subject to subsection 7(3), this Agreement may be extended by Hydro Ottawa for an additional three (3) month period under the same terms and conditions ("Renewal Term"). Collectively, the Initial Term and the Renewal Term are referred to as the Term.
- (3) If Hydro Ottawa wishes to extend the Initial Term, Hydro Ottawa shall give written notice to the Contractor not less than thirty (30) days prior to the expiration of the Initial Term.
- (4) If no notice is given that Hydro Ottawa wishes to extend the Initial Term, within the time allowed, or if the Contractor should reject Hydro Ottawa's request to extend the Agreement, this Agreement shall end upon the expiration of the Initial Term.

## 8. Termination and Default

- (1) Each of the following will constitute an Event of Default by the Contractor:
  - a) The Contractor becomes insolvent, makes a general assignment for the benefit of creditors, permits a Receiver to be appointed for its business or assets or becomes subject to any proceedings under the **Bankruptcy and Insolvency Act**, R.S.C. 1985, c. B-3 or any statute of any provinces, state or other jurisdiction relating to insolvency or the protection of creditor's rights.
  - b) The Contractor fails to perform any material covenant or obligation set forth in this Agreement (except to the extent constituting a separate Event of Default) if such failure is not remedied within ten (10) Business Days after written notice of such failure from Hydro Ottawa.
  - c) Any representation made by the Contractor is not materially true or correct in any material respect when made and is not made materially true or correct within two (2) Business Days after receipt by the Contractor of written notice of such fact from Hydro Ottawa.
  - d) The Contractor fails to conform to all Applicable Law.
  - e) The Contractor has breached or is in breach of Section 19.
- (2) If any Event of Default occurs, upon written notice to the Contractor, Hydro Ottawa may terminate this Agreement.

- (3) Despite the foregoing, upon the occurrence of an Event of Default referred to in paragraph 1(a), this Agreement shall automatically terminate without notice, act or formality, effective immediately before the occurrence of such Event of Default.
- (4) Any termination shall be without prejudice to the rights accruing and remedies subsisting under this Agreement at the date of such termination. In addition, Hydro Ottawa shall be entitled to obtain damages from the Contractor for any losses incurred directly resulting from such Event of Default. Furthermore, in addition to its rights of set-off available to it under this Agreement or at law, Hydro Ottawa may hold back payment or set-off its obligation to make such payment against any payments owed to it if the Contractor fails to comply with its obligations on termination.
- (5) Notwithstanding anything to the contrary contained herein, Hydro Ottawa may, at any time prior to the completion of the work, terminate the Agreement as regards all or any part of the uncompleted work, by giving written notice to the Contractor. Upon receipt of a termination notice, the Contractor shall cease work in accordance with the notice, but shall proceed to complete such part or parts of the work that are not affected by the termination notice.
- (6) In the event of a termination notice being given pursuant to this Section, the Contractor shall be entitled to be paid, to the extent that costs have been reasonably and properly incurred for the purposes of performing the Agreement and to the extent that the Contractor has not already been so paid or reimbursed by Hydro Ottawa, on the basis of the pricing set out in the Agreement, for all work completed, inspected and accepted in accordance with the Agreement.
- (7) Notwithstanding Section 9, if an event of force majeure continues for 30 days or more, Hydro Ottawa, in its absolute discretion, may terminate this Agreement. In such case, the parties agree that neither will make a claim against the other for damages, costs, expected profits or any other loss arising out of the termination or the event that gave rise to the force majeure.
- (8) Upon termination, whether pursuant to this Section or the expiry of the Agreement, the Contractor shall provide a copy of all Hydro Ottawa's records in the format acceptable and indexing to Hydro Ottawa without any delay.

#### **9. Force Majeure**

- (1) Neither party shall be liable in damages or have the right to terminate this Agreement for any delay or default in performing hereunder if such delay or default is caused by conditions beyond the party's control including, but not limited to Acts of God, Government restrictions (including the denial or cancellation of any permits or other necessary license), wars, insurrections, fires, floods or unusually severe weather, disruptions resulting from labour disputes, governmental or regulatory action and/or any other cause beyond the reasonable control of the party whose performance is affected ("**Force Majeure**").
- (2) The performance requirements specified in the Agreement and affected by such causes shall be extended by periods equal to the duration of the event that gave rise to the Force Majeure. The Contractor shall immediately notify Hydro Ottawa of any event or situation that might possibly create a situation of Force Majeure. Acknowledgement of any Force Majeure is subject to the submission by the Contractor of a written confirmation of proof of the events or circumstances forming the basis of the Contractor's claim regarding Force Majeure.

#### 10. Representations and Warranty

- (1) The Contractor covenants and agrees with and represents and warrants to Hydro Ottawa as follows and covenants and agrees that such representations and warranties shall remain true and correct throughout the Term:
- (a) Status. The Contractor is duly constituted, validly existing and in good standing under the laws of its governing jurisdiction.
  - (b) Authority. The Contractor has the necessary power, authority and capacity and good and sufficient right to enter into this Agreement on the terms and conditions herein set forth, and the execution and performance of this Agreement will not conflict with, or constitute a breach under, any agreement to which it is a party or any judgment, order, statute or regulation which is applicable to the Contractor.
  - (c) Experience and Financial Capacity. The Contractor understands the requirements of Hydro Ottawa as set out in this Agreement and that it possesses the skills, know-how and ability to satisfactorily meet such requirements in the provision of the Services to the standards required in this Agreement. The Contractor has the experience, ability and financial capacity to perform and fulfill its obligations hereunder, and covenants to maintain during the Term, the financial and other ability and authority to perform and fulfill its obligations hereunder.
  - (d) Quality of Services. The Services shall be performed fully and diligently in good faith and in a professional and competent manner by persons qualified and skilled in their occupations and all Services will be provided in accordance with:
    - (i) the Agreement;
    - (ii) Industry Standards; and
    - (iii) in accordance with Applicable Law.
  - (e) Conflict of Interest. The Contractor has no interest and will not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of service under this Agreement.
  - (f) Valid, Binding and Enforceable. This Agreement constitutes a valid and binding obligation of the Contractor, enforceable against the Contractor in accordance with its terms and conditions.
  - (g) HST Registrant. The Contractor is a HST Registrant in good standing.

#### 11. Indemnification

- (1) The Contractor shall indemnify, defend, and save harmless Hydro Ottawa, together with Hydro Ottawa's Representatives and assigns, from and against any and all loss, damage, injury, or safety infraction of the Contractor, or its Representatives, under all conditions and all actions, causes of action, proceedings, suits, claims, demands, losses, damages, penalties, costs (including the payment of all legal fees), expenses, obligations and liabilities in connection therewith, attributable to, related to or arising out of:
- (i) breaches of the Contractor's, or its Representatives', obligations herein,
  - (ii) any misrepresentation, inaccuracy, incorrectness or breach of any representation or warranty made by the Contractor contained in this Agreement and/or

(iii) any of the Contractor's, its Representatives' or transferees', acts or omissions, whether negligent, criminal, fraudulent or otherwise

- (2) Hydro Ottawa shall give notice to the Contractor of any claim, action, suit or proceeding referred to in subsection 11(1) and the Contractor shall at its own expense, to the extent requested by Hydro Ottawa, participate in or conduct the defence of any such claim, action, suit or proceeding and any negotiations for settlement of the same, but the Contractor shall not be liable to indemnify Hydro Ottawa for payment of any settlement unless it has consented to the settlement
- (3) Hydro Ottawa may elect to participate in or conduct the defence of any such claim, action, suit or proceeding by notifying the Contractor in writing of such election without prejudice to any other rights or remedies of Hydro Ottawa under this Agreement, at law or in equity. Each Party participating in the defence shall do so by actively participating with the other's counsel. If the Contractor is requested by Hydro Ottawa to participate in or conduct the defence of any such claim, action, suit or proceeding, Hydro Ottawa agrees to co-operate with and assist the Contractor to the fullest extent possible in the claim, action, suit or proceeding and any related settlement negotiations. If Hydro Ottawa conducts the defence of any such claim, action, suit or proceeding, the Contractor agrees to co-operate with and assist Hydro Ottawa to the fullest extent possible in the claim, action, suit or proceeding and any related settlement negotiations.

## **12. Insurance**

- (1) Before commencing any work under this Agreement, the Contractor shall provide a certified copy of its liability insurance certificate attesting its coverage by a General Liability Insurance Policy. Hydro Ottawa must be named as an additional insured by added endorsement on the Contractor's policy. The coverage shall be two million dollars (\$2,000,000) per occurrence involving bodily injury or property damage. Such coverage must be maintained continuously during the course of the work under the Agreement, and renewal certificates must be provided as required, satisfactory in form to Hydro Ottawa. Failure by the Contractor to ensure that the required insurance coverage remain in force during the course of the Agreement will result in the immediate termination of the Agreement without notice and without penalty to Hydro Ottawa.
- (2) Where applicable, a Contractor shall carry an all-inclusive Third Party Automobile Liability Insurance Policy, with a minimum limit of two million dollars (\$2,000,000) per occurrence.
- (3) The Contractor shall maintain Professional Liability insurance coverage (minimum \$1,000,000 per claim) throughout the Term of the Agreement, and for a period of three (3) years after the date of contract completion.
- (4) Hydro Ottawa shall be named as an additional insured on all of the above-mentioned Contractor's insurance policies.

## **13. Subcontracting**

- (1) In providing the Services contracted for under this Agreement, the Contractor shall act as a single point-of-accountability vendor; namely as the "Prime Contractor", and who, in acting as the Prime Contractor, shall assume complete and overall contractual responsibility for the provision of the Services and related activities and provide for all ongoing product and performance warranties to the extent set out in this Agreement. The provision of any products or services by any Subcontractors shall not in any way whatsoever release or discharge the Contractor or derogate from the covenants, representations and warranties provided by the Contractor under this Agreement. Notwithstanding the provision of products or services by any

Subcontractors, the sole responsibility for the provision of all products or services during the Term lies with the Contractor and in no event shall Hydro Ottawa be compelled to seek or pursue remedy against any Subcontractors.

- (2) Notwithstanding subsection 13(3), the Contractor agrees that it is liable for the acts and omissions of its Representatives and Subcontractors in performing the Services. This subsection 13(2) is in addition to any and all of the Contractor's liabilities under the Agreement and under the general application of law. The Contractor shall advise its Representatives of their obligations under the Agreement and shall be responsible for their compliance with the applicable terms of the Agreement. In addition to any other liabilities of the Contractor pursuant to the Agreement or otherwise at law or in equity, the Contractor shall be liable for all losses or claims arising from any breach of the Agreement resulting from the actions of the above mentioned Representatives in performing the Services. This subsection shall survive the termination or expiry of this Agreement.
- (3) The Contractor shall not subcontract or assign the whole or any part of the Agreement without providing written notice to Hydro Ottawa prior to the effective date of the subcontract or assignment. Such consent shall not be unreasonably withheld by Hydro Ottawa and is subject to the terms and conditions that may be imposed by Hydro Ottawa. Without limiting the generality of the conditions which Hydro Ottawa may require prior to consenting to the Contractor's use of a subcontractor, every contract entered into by the Contractor with a Subcontractor shall adopt terms and conditions substantially similar to the terms and conditions of this Agreement as far as applicable to those parts of the Services provided by the Subcontractor. Nothing contained in the Agreement shall create a contractual relationship between any Subcontractor or its Representatives and Hydro Ottawa.
- (4) In performing this Agreement, the Contractor shall operate as an independent Contractor, maintaining its own organization as a distinct and separate legal entity from Hydro Ottawa. The Contractor and its Representatives shall have no authority to hold themselves out as acting on behalf of or to legally bind Hydro Ottawa. Nothing in this Agreement shall be deemed to constitute a partnership or a joint venture or to create any fiduciary relationship between Hydro Ottawa and the Contractor.

#### **14. Invoices**

- (1) Invoices must be submitted in the name of the Contractor and are not to be submitted prior to the performance of the Services. They must show the name and address of the Contractor, together with date, reference to purchase order number, amount charged for services performed during the period, additional charges if applicable, applicable taxes, and description of services provided.
- (2) The preferred method of receiving invoices is via e-mail addressed to the Accounts Payable Department at [accountspayable@hydroottawa.com](mailto:accountspayable@hydroottawa.com). Invoices can also be mailed to the Accounts Payable Department at Hydro Ottawa's office at 3025 Albion Road North, P.O. Box 8700, Ottawa, Ontario, K1G 3S4.

#### **15. Payment**

- (1) The Contractor's pricing information is contained in Schedule B. Payment shall be based on price indicated in Schedule B, excluding taxes, and, subject to subsections 15(3), (4), and (5).
- (2) Hydro Ottawa will reimburse the Contractor for pre-approved travel, meal and accommodation expenses in accordance with **Appendix 1 to Schedule B – Hydro Ottawa Expense Policy**.

- (3) Payment will only be made if a duly completed invoice and any other documents required by the Agreement have been submitted, and verified by Hydro Ottawa, in accordance with the terms of the Agreement.
- (4) Hydro Ottawa shall notify the Contractor within fifteen (15) Business Days of receipt of an invoice or revised invoice of any inadequacy of the invoice or of the supporting documentation and, where any such notice is given within that period, the date for payment of the amount invoiced shall be postponed until the Contractor remedies the inadequacy to the satisfaction of Hydro Ottawa.
- (5) Subject to subsection 15(4), payment will be made within thirty (30) days following the date of receipt of a duly completed invoice, in accordance with Section 14.

#### **16. Withholding Taxes**

If the Contractor is a non-resident of Canada and has not obtained and provided to Hydro Ottawa a non-resident withholding tax waiver at such time as Hydro Ottawa makes any payment to the Contractor for services rendered by it to Hydro Ottawa in Canada, Hydro Ottawa shall withhold such percentage of any payment made by it for the services as is from time to time mandated under the Income Tax Act (Canada) (the "ITA") and shall remit the withheld amount to Canada Revenue Agency in the manner and at the time required by the ITA. In the event that Hydro Ottawa is assessed for any non-resident withholding taxes payable to Canada Revenue Agency, the Contractor agrees to forthwith reimburse Hydro Ottawa for such amount together with applicable interest and penalties, if any.

#### **17. Acceptance**

No part of the Services will be accepted unless approved by Hydro Ottawa and Hydro Ottawa is satisfied that the work completed fully complies with the true meaning and intent of the specifications set out in Schedule A. Such acceptance, however, shall not impair any claim that Hydro Ottawa may have for the replacement of defective work or material.

#### **18. Records and Audit**

- (1) The Contractor shall keep proper accounts and records of the cost to the Contractor of the Services provided and of all expenditures or commitments made by the Contractor in connection therewith, and shall keep all books and records including invoices, receipts, vouchers, cheques, and bank statements relating thereto. The Contractor shall not, without the prior written consent of Hydro Ottawa, dispose of any such accounts, records, invoices, receipts or vouchers until the expiration of five (5) years after final payment under this Agreement, or until the settlement of all outstanding claims and disputes, whichever is later.
- (2) All such accounts and records as well as any invoices, receipts, vouchers, cheques, and bank statements shall at all times during the retention period referred to in subsection 18(1) be open to audit, inspection and examination by the authorized representatives of Hydro Ottawa, who may make copies and take extracts thereof. The Contractor shall furnish all such information as the representatives of Hydro Ottawa may from time to time require with respect to such accounts, records, invoices, receipts and vouchers.

#### **19. Confidentiality, Privacy and Security**

- (1) Each party agrees to:
  - (i) keep confidential all Confidential Information disclosed to by the other party during the term of this Agreement and

- (ii) not to disclose any of such Confidential Information to any third party or any of its Representatives except to such of them to whom disclosure is necessary in connection with this Agreement and who have agreed to be bound by the obligations of confidentiality under this Agreement. "Confidential Information" means any proprietary ideas, plans and information, including without limitation, information of a technical or business nature (including without limitation, all trade-secrets, technology, financial information, intellectual property, any information relating to human resources matters, data, summaries, reports, the terms of this Agreement, or customer lists, whether oral or written and if written, however produced or reproduced) of a party or any of its Affiliates that is received by or otherwise disclosed by one party to the other party that is marked proprietary or confidential, or that would logically be considered proprietary or confidential under the circumstances of its disclosure. In addition, no party shall directly or indirectly use to its own advantage any such Confidential Information. If this Agreement is terminated at any time, the parties agree that such Confidential Information provided and all copies thereof (excluding Confidential Information in oral form that has not been put into tangible form) will be immediately returned to the disclosing party or, at the disclosing party's option, destroyed. Notwithstanding the foregoing, the receiving party shall be entitled to keep, subject always to all the provisions of this Agreement, one copy of any notes, analyses, reports or other written material prepared by, or on behalf of, the receiving party that contain Confidential Information for its records. In the event of any destruction of Confidential Information as set forth above, the receiving party shall provide to the disclosing party, upon request, a certificate of one of its senior officers certifying such destruction.
- (2) The Contractor shall:
  - (i) collect, use, disclose, and retain Personal Information only as required to fulfill its obligations pursuant to this Agreement;
  - (ii) take appropriate measures to ensure the privacy and security of all Personal Information, including taking measures to prevent unauthorized access, collection, use, disclosure, copying, modification or disposal; and
  - (iii) comply with all Applicable Law related to privacy or data protection.
- (3) Confidential Information shall not include information that:
  - (i) is already known to the recipient at the time of disclosure;
  - (ii) is or becomes publicly known otherwise than by a breach of this Agreement by the receiving party or its Representatives or any third person to whom it discloses such Confidential Information;
  - (iii) is communicated to a third party with the express written consent of the disclosing party;
  - (iv) is independently developed by the recipient without the benefit of having received said confidential information;
  - (v) is lawfully required to be disclosed, provided that, prior to making such disclosure, to the extent permitted by law, the recipient shall immediately give the disclosing party written notice and cooperate with the disclosing party in applying for an order to prohibit or restrict such disclosure and/or to assure confidential handling of such Confidential Information.
- (4) The Contractor acknowledges and agrees that all Personal Information collected or accessible to the Contractor in the course of providing the Services, including Personal Information about Hydro Ottawa Personnel constitutes Confidential Information of Hydro Ottawa to which the provisions of subsection 19(1) apply, except to the extent such provisions are inconsistent with this subsection 19(4), which prevails with respect to Personal Information. In addition to the obligations set out in Section 19(1) and notwithstanding the disclosure rights set out in subsection 19(2), the Contractor shall:

- (i) comply with the Privacy Rules set out in Appendix 1 to Schedule A;
  - (ii) Handle Personal Information only as required to fulfil its obligations pursuant to this Agreement;
  - (iii) take appropriate measures to ensure the privacy and security of all Personal Information, including taking measures to prevent unauthorized Handling;
  - (iv) if requested by Hydro Ottawa, within five Business Days from the date upon which the request was made by Hydro Ottawa, either: (a) update, correct or delete Personal Information or modify the individual's choices with respect to the permitted use by Hydro Ottawa of such Personal Information; or (b) provide access to Hydro Ottawa to enable it to perform the activities described in paragraph (a) itself; and
  - (v) comply with Privacy Laws.
- (5) In addition to all other requirements set forth in this Agreement, the Contractor shall take all steps required to update and maintain its security and back-up processes and procedures, its hardware, software, systems, facilities and services, and the requirements set out in Hydro Ottawa's security policies, so that they are, at all times throughout the Term, consistent with Industry Standards in North America. Without limiting the foregoing, the Contractor shall protect all Confidential Information of Hydro Ottawa and Personal Information with security measures appropriate to the sensitivity of the Confidential Information and Personal Information while preserving its integrity and availability as required to perform the Services. Depending on the nature of the Confidential Information and Personal Information and the circumstances, these measures may include physical controls (for example, keeping Personal Information in locked cabinets), password protection of electronic files, encryption of data, or other measures such as firewalls, anti-virus software and other means to protect the security of systems or file storage areas. The Contractor and its Subcontractors may update or modify their security measures from time to time provided that prior written notice of such updates and modifications is given to Hydro Ottawa and such updates and modifications do not result in the degradation of the overall security of the Services.
- (6) If Hydro Ottawa requests that the Contractor provide a copy of its or any Contractor Subcontractor's, privacy policy, security policy or other similar documents, the Contractor shall promptly provide a copy of such policies without charge to Hydro Ottawa.
- (7) Unless expressly permitted hereunder, the Contractor shall keep all Confidential Information of Hydro Ottawa and Personal Information that is stored by the Contractor in tangible form physically segregated from other tangible forms of information, and shall keep all Confidential Information of Hydro Ottawa and Personal Information that is stored by Contractor in electronic form logically segregated from any other information of Contractor, Contractor Subcontractors or their respective customers.
- (8) Upon the occurrence of any actual or suspected Security Breach, the Contractor shall do the following:
- (i) immediately notify Hydro Ottawa by telephone and in writing;
  - (ii) take all steps necessary to enforce against any Person that is or may be engaging in such unauthorized Handling any rights that the Contractor has to require such Person to comply with any obligation of confidence to the Contractor and to cease such unauthorized activities;
  - (iii) do all things, execute all documents and give all assistance reasonably required by Hydro Ottawa to enable Hydro Ottawa to enforce against any Person that is or may be engaging in such unauthorized Handling any rights that Hydro Ottawa has to require such Person to comply with any obligation of confidence to the Hydro Ottawa and to cease such unauthorized activities; and

- (iv) if the Security Breach involves Personal Information, then, if requested by Hydro Ottawa, communicate with the media and affected Persons (by press release, telephone, letter, call centre, website or any other method of communication) to explain the occurrence of the Security Breach and the remedial efforts being undertaken. The content and method of any such communications will be determined by Hydro Ottawa, acting reasonably.
- (9) The Contractor acknowledges that any violation of the provisions of this Section 19 may cause irreparable damage or injury to Hydro Ottawa, the exact amount of which may be impossible to ascertain, and that, for such reason, in addition to any other remedies available to Hydro Ottawa, Hydro Ottawa is entitled to proceed immediately to court in order to obtain, and the Contractor shall consent to, interim, interlocutory, and final injunctive relief restraining the Contractor from breaching, and requiring the Contractor to comply with, its obligations under this Section 19, without a requirement that a finding of irreparable harm or other criteria for the awarding of injunctive relief be made. The Contractor acknowledges the importance to Hydro Ottawa of the Contractor's strict compliance with the terms of this Section 19 and acknowledges that Hydro Ottawa's interest in the strict enforcement of this Section 19 will outweigh the balance of convenience or harm that the Contractor may suffer as a result of the strict enforcement of this Section 19. Nothing in this subsection will be construed to limit the right of a party to obtain injunctive relief in any other circumstance in which it may be otherwise entitled to such relief.
- (10) Each party shall be responsible for any breach of this Agreement by the party, its affiliates, its Representatives and any person to whom it discloses any Confidential Information. Full and faithful performance by each of the parties hereto of all obligations under this Agreement is the essence of this Agreement. Each of the parties hereto acknowledges that monetary damages are not an adequate remedy for violations of the obligations of confidentiality under this Agreement and that any non-compliance or breach thereof shall result in irreparable harm to the disclosing party, and that in such event the disclosing party shall be entitled to equitable relief, including injunctive relief, without prejudice to any other remedies available to the said disclosing party.

## **20. Ownership of Work Product**

- (1) The Contractor will promptly disclose and provide in writing to Hydro Ottawa all works, products, discoveries, developments, designs, improvements (whether or not patentable, and whether or not at a commercial stage, or registrable under copyright or similar statutes) which are authored, made, conceived, or reduced to practice in the course of rendering the Services and provided by the Contractor (either alone or jointly with others) during the period the Contractor provides the Services including any concepts, ideas, suggestions and approaches related thereto or contained therein (collectively, the "**Work Products**").
- (2) Hydro Ottawa shall own all Work Product, arising during the course of the Contractor's obligations to Hydro Ottawa under this Agreement.
- (3) Each party and/or their respective licensors shall retain ownership of all Intellectual Property, that is: (i) proprietary to that party or which a party has a right to sublicense to the other party; and (ii) was created, conceived or developed prior to, or independent of the Contractor's work for Hydro Ottawa ("**Pre-Existing Intellectual Property**"). The Contractor agrees to take such actions and execute such further acknowledgments and assignments as Hydro Ottawa may reasonably request to give effect to this provision.

## **21. Intellectual Property:**

- (1) Hydro Ottawa hereby grants the Contractor a limited, revocable, non-exclusive, non-transferable license during the Term:

- (i) to use the Hydro Ottawa Intellectual Property related to the Services as required and as contemplated by this Agreement; and
  - (ii) to use Hydro Ottawa Marks (defined below) in connection with the Services, in marketing materials related to the Services or as otherwise agreed by the Parties and as pre-approved by Hydro Ottawa.
  - (iii) For the purpose of this Agreement, "Marks" means the trademarks, including registered and common law trademarks, trade names, service marks, logos, domain names and designations owned, licensed or used by Hydro Ottawa.
- (2) The Contractor and Subcontractors will have the right to use the Hydro Ottawa Marks only in connection with the Services and only in a manner and form approved in advance in writing by Hydro Ottawa, which approval shall not be unreasonably withheld or delayed. All use of the Hydro Ottawa Marks shall ensure to the benefit of Hydro Ottawa. All right, title and interest in and to the Hydro Ottawa Marks remain with Hydro Ottawa and upon termination of the Agreement for any reason, the Contractor and Subcontractors will have no further right to use the Hydro Ottawa Marks and will immediately cease and desist use of them.
- (3) Hydro Ottawa may terminate a foregoing license granted to the Contractor if, in its reasonable discretion, the Contractor's use of the Marks tarnishes, blurs or dilutes the quality associated with the Marks or the associated goodwill and is not in conformance with instructions provided by the licensor, or such problem is not cured within ten (10) Business Days of written notice of breach.
- (4) For the purpose of this agreement, "**Intellectual Property**" means :
- (i) any and all proprietary rights anywhere in the world provided under: (1) patent law; (2) copyright law (including moral rights); (3) trade-mark law; (4) design patent or industrial design law; (5) semi-conductor chip or mask work or integrated circuit topography law; or (6) any other statutory provision or common law principle applicable to this Agreement, including trade secret law, that may provide a right in either hardware, software, content, documentation, confidential information, trade-marks, ideas, formulae, algorithms, concepts, inventions, processes or know-how generally, or the expression or use of such hardware, software, content, documentation, confidential information, trade-marks, ideas, formulae, algorithms, concepts, inventions, processes or know-how;
  - (ii) any and all applications, registrations, licenses, sub-licenses, franchises, agreements or any other evidence of a right in any of the foregoing;
  - (iii) any and all licenses and waivers and benefits of waivers of the intellectual property rights set out in paragraph (i) or any and all applications, registrations, licenses, sub-licenses, franchises, agreements or any other evidence of a right in any of the foregoing;
  - (iv) all future income and proceeds from the intellectual property rights set out in paragraphs (i) or (ii) above, and all rights to damages and profits by reason of the infringement or violation of any of the intellectual property rights set out in paragraphs (i) or (ii) above.

## 22. Personnel

- (1) The Contractor shall employ, and continue to employ throughout the Term, Personnel with the qualifications and business experience necessary to competently undertake and complete the Services pursuant to this Agreement.
- (2) The Contractor shall provide the services of the resources specified in the Contractor's Proposal dated February 5, 2019, Steven Fenrick, M.S., Project Manager, Erik S. Sonju, P.E., Engineering Expert, Matt Sekeres, Data Analyst and David Williams, J.D., Research Analyst to perform the Services unless it is impossible to do so for reasons which are beyond its control. In such case, the Contractor shall be responsible for providing replacement(s) that shall be of equal or superior ability and attainment.

- (3) In no event shall the Contractor allow replacement personnel perform any of the Services until the Contractor has obtained the approval of Hydro Ottawa in accordance with subsection (4).
- (4) Prior to replacing personnel, the Contractor shall give written notice to Hydro Ottawa no later than ten (10) business days before the date the proposed replacement is to take effect. The notice shall include the reason for the replacement; and the name, qualifications and experience of the proposed replacement.

### **23. Notices**

Any notice required to be given shall be in writing and shall be delivered by hand to the party for which it is intended or sent by electronic mail, prepaid registered mail or prepaid courier directed to such party at the address indicated below, or such other address as any party may stipulate by notice to the other. Any notice delivered by hand or prepaid mail or courier shall be deemed to be received on the date of actual delivery thereof. Any notice delivered by electronic mail shall be deemed to be received on the next day following the date the electronic mail was sent.

#### **Hydro Ottawa Limited**

3025 Albion Road North, P.O. Box 8700  
Ottawa, ON K1G 3S4

**Attention:** Farah Butt, Senior Procurement Agent  
Email: [farahbutt@hydroottawa.com](mailto:farahbutt@hydroottawa.com)

#### **Clearspring Energy Advisors, LLC**

1050 Regent St., Suite L3  
Madison, WI 5315

**Attention:** Mr. Steve Fenrick, Principal Consultant  
Email: [steve.fenrick@clearspringenergy.com](mailto:steve.fenrick@clearspringenergy.com)

### **24. Successors and Assigns**

- (1) This Agreement shall enure to the benefit of and be binding upon the parties thereto, and except as otherwise provided therein, upon the executors, administrators, successors, and permitted assigns.
- (2) Notwithstanding subsection 24(1), the Contractor shall not assign its rights under this Agreement, in whole or in part, without the prior written consent of Hydro Ottawa. Hydro Ottawa may apply terms and conditions in respect of such consent.
- (3) Hydro Ottawa may assign its rights under this Agreement, in whole or in part, without the prior written consent of the Contractor.

### **25. Performance**

The Services shall be performed in accordance with the approved industrial practices and carried out by technicians or workers skilled and qualified in the type of services required. The Contractor shall conduct itself with the utmost professionalism to ensure good working relations.

**26. Time of Essence**

Time shall be of the essence of this Agreement.

**27. Conflict of Interest**

The Contractor warrants that it presently has no interest and will not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of service under this Agreement.

**28. Entire Agreement**

The terms and conditions set forth in this Agreement constitute the full and final expression of the contract in respect of the Services, and all matters contemplated in this Agreement, and supersedes all prior quotations, purchase orders, correspondence or communications whether written or oral between the Contractor and Hydro Ottawa. Notwithstanding any contrary language in the Contractor's purchase order, correspondence or other form of acknowledgement, the Contractor shall be bound by this Agreement. **ANY ADDITIONAL OR ANY DIFFERENT TERMS ARE REJECTED UNLESS EXPRESSLY AGREED TO IN WRITING BY BOTH HYDRO OTTAWA AND THE CONTRACTOR.**

**29. Amendments and Waivers**

No amendment or waiver of any provision of this Agreement shall be binding on either party unless consented to, in writing, by such party. No waiver of any provision of this Agreement shall constitute a waiver of any other provision, nor shall any waiver constitute a continuing waiver, unless otherwise provided.

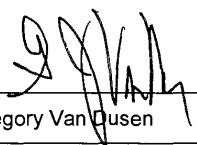
**30. Survival**

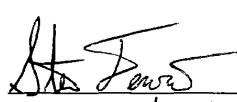
Any terms, which by their nature are intended to survive the termination of this Agreement, shall continue in full force and effect after termination, which terms shall include, but not be limited to Sections 10, 11, 12, 13, 17, 18, 19 and 20.

IN WITNESS WHEREOF this Agreement has been signed by the duly authorized officers of the parties hereto.

HYDRO OTTAWA LIMITED

CLEARSPRING ENERGY ADVISORS, LLC

Signature:   
Name: Gregory Van Dusen  
Title: Director, Regulatory Affairs  
Date: MARCH 7 / 19

Signature:   
Name: Steven A. Fenrick  
Title: Executive Vice President  
Date: March 1, 2019

I have authority to bind the corporation

I have authority to bind the corporation

## **Schedule A – Statement of Work**

### **1. Project Overview**

Hydro Ottawa requires services of a Contractor to prepare an econometric benchmarking study (hereinafter referred to as "Econometric Benchmarking Study"). This Econometric Benchmarking Study will examine the past and projected total cost performance, along with the historical reliability performance, of Hydro Ottawa's electricity distribution business.

This Econometric Benchmarking study will be included as evidence in the next five-year Custom Incentive Rate-setting ("Custom IR") application which Hydro Ottawa is planning to submit to the Ontario Energy Board ("OEB"). This application will seek OEB approval of Hydro Ottawa's proposed distribution rates and other charges for the years 2021-2025. In compliance with OEB requirements and guidelines, Hydro Ottawa plans to submit several benchmarking studies (including the Econometric Benchmarking Study) to demonstrate the reasonableness of the revenue forecasts which will be included in its forthcoming Custom IR application.

Hydro Ottawa expects that the Econometric Benchmarking Study will mimic the methods used in the preparation and presentation of the econometric total cost and reliability benchmarking studies which were included in the following: (i) Hydro Ottawa's previous Custom IR application for 2016-2020 rates (OEB File No. EB-2015-0004); and (ii) Custom IR applications submitted by other large electricity distributors in Ontario, such as Hydro One Networks and Toronto Hydro Electric-System Limited. It is Hydro Ottawa's understanding that all of the foregoing studies were prepared by Power System Engineering, Inc. ("PSE").

### **2. Definitions**

In addition to terms defined in the body of this Schedule A – Statement of Work, the following term(s) shall have the meaning set out below:

"Stretch factor" – a stretch factor is intended to reflect the incremental productivity gains that electricity distributors are expected to achieve under OEB incentive regulation ("IR") and is a common feature of IR plans. Expected productivity gains can vary by distributor and depend on the efficiency of a given distributor at the outset of the IR plan. Stretch factors are generally lower for distributors that are relatively more efficient.<sup>1</sup>

### **3. Scope of Work**

#### **(i) Deliverable #1 – Preparation of Econometric Benchmarking Study**

The Contractor shall:

- Conduct all necessary research to support the preparation of the Econometric Benchmarking Study;

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<sup>1</sup> Source: Report of the OEB – Renewed Regulatory Framework for Electricity Distributors: A Performance-Based Approach (October 18, 2012); Report of the OEB – 3<sup>rd</sup> Generation Incentive Regulation for Ontario's Electricity Distributors (July 14, 2008).

- Collaborate with Hydro Ottawa in identifying which elements to include in the dataset for the Econometric Benchmarking Study's cost model (including comparator utilities for the sample pool);
- Collaborate with Hydro Ottawa in obtaining and compiling relevant data from the company, pursuant to information sharing agreements and/or requests, where appropriate;
- Coordinate administrative logistics for conference calls with Hydro Ottawa that will be held over the course of the project;
- Ensure that the Econometric Benchmarking Study (as one of the final deliverables) does the following:
  - Evaluates the reasonableness of Hydro Ottawa's historical and projected total cost amounts and system reliability metrics, and offers recommendations and findings, where appropriate, based on those evaluations;
  - Assembles the historical costs of all utilities in the dataset, along with the variables that affect cost;
  - Estimates an econometric model that expresses the relationship between the variables and cost (or reliability);
  - For each utility in the sample, produces benchmark values for any given year;
  - Compares the costs that are expected/predicted for Hydro Ottawa by the model to Hydro Ottawa's historical and 2021-2025 forecasted costs;
  - Provides a recommended stretch factor for Hydro Ottawa's 2021-2025 Custom IR application.

Hydro Ottawa acknowledges that, in order to complete the aforementioned Scope of Work, the Contractor may require access to the cost model that formed the basis of the study prepared by PSE to support the company's 2016-2020 Custom IR application. The Contractor may also need to update this model with the most recent available data.

Hydro Ottawa is prepared to authorize release of this cost model and corresponding datasets to the Contractor, pending the finalization of a contractual arrangement with the Contractor, which may include the establishment of safeguards to ensure the confidentiality of Hydro Ottawa's data.

(ii) Deliverable #2 – Expert Witness Support for OEB Hearing

The Contractor shall:

- Over the course of the applicable OEB adjudicative proceeding, attend technical conferences, provide expert witness testimony, assist in answering relevant interrogatories, and provide other such support, as necessary and as requested.

4. Completion Date

Hydro Ottawa is planning to file its 2021-2025 Custom IR application to the OEB by early December 2019. Accordingly, Hydro Ottawa's targeted date for the completion of Deliverable #1 is June 28, 2019.

The dates and timelines for Deliverable #2 are not yet known, as they are subject to the timing of the notices received from OEB staff that Hydro Ottawa's Custom IR application has fulfilled all relevant OEB filing requirements and that formal review through a hearing can commence. Such notices are typically issued within one to two months of the application's submittal. Hydro Ottawa

will keep the Contractor posted on relevant details pertaining to the dates and timelines for Deliverable #2.

#### Appendix 1 to Schedule A - Privacy Rules

1. **Continuation of Privacy Laws.** The Contractor shall immediately advise Hydro Ottawa if it believes that any practice or procedure in which it is engaging contravenes applicable Privacy Laws, or if it receives or learns of any complaint or allegation to that effect, but any decision as to changing any such practice shall be made by Hydro Ottawa in its sole discretion. If Hydro Ottawa determines, in its sole discretion, that a practice or procedure would result in violation of applicable Privacy Laws, Hydro Ottawa may amend the Work to vary or eliminate such practice or procedure.
2. **No Disclosure of Personal Information.** Except as expressly permitted herein, the Contractor shall not, without the prior written consent of Hydro Ottawa:
  - disclose any Personal Information to any affiliated or unaffiliated third party, or
  - transmit or provide access Personal Information to any of the Contractor's personnel, or to any facility, outside Canada.
3. **Complaints.** Any privacy related requests or complaints received by the Contractor in relation to the Work shall be immediately referred to Hydro Ottawa. If the Contractor receives any inquiry or complaint relating to Personal Information that has been Handled while performing the Work, the Contractor shall immediately notify Hydro Ottawa thereof in such form and manner, and with such particulars, as Hydro Ottawa may from time to time specify. If Hydro Ottawa notifies the Contractor that it requires assistance in investigating or responding to the inquiry or complaint, the Contractor shall fully cooperate with Hydro Ottawa by furnishing it with complete information concerning its Handling of the Personal Information, including responding, if requested to do so, to any inquiry by a regulatory authority under any applicable Privacy Laws and/or to any complaint. If any inquiry or complaint gives rise to regulatory or court proceedings, the Contractor shall co-operate in the conduct of such proceedings and shall attend hearings and assist in securing and giving evidence and obtaining the attendance of witnesses.
4. **Audit of the Contractor Practices.** Hydro Ottawa may on reasonable notice, audit the Contractor's compliance with these Privacy Rules, PIPEDA and any other Privacy Laws. Hydro Ottawa shall have no duty to conduct such an audit and shall not incur any liability or obligation by reason of doing or not doing so.
5. **Security Measures.** All Personal Information shall be stored in a secure physical and electronic environment meeting or exceeding then-current Industry Standards and satisfactory to Hydro Ottawa in its sole discretion. Promptly upon notice from Hydro Ottawa, the Contractor will undertake, at its sole cost and expense, to remedy any security deficiency or improvement identified or requested by Hydro Ottawa.
6. **Notification of Unauthorized Activities.** The Contractor shall promptly notify Hydro Ottawa in writing upon becoming aware of the loss, theft, or unauthorized Handling of any Personal Information.
7. **Limitations of Access.** The Contractor shall:
  - ensure that only such of its Personnel as have a need to know Personal Information for the performance of the Work have access to Personal Information;
  - not disclose any Personal Information to any third parties other than suppliers approved by Hydro Ottawa in writing who have been retained as an agent of the Contractor to perform the Work, who have signed a written Confidentiality Agreement with substantially

similar obligations of confidentiality as those set out herein and which includes provisions prohibiting such supplier from Handling Personal Information for any purpose other than for the performance of the Work and prohibiting the disclosure by such supplier of any Personal Information to any third party;

- ensure that each person who has such access (a "User") is familiar with the privacy obligations hereunder;
- take reasonable steps, through training, confidentiality agreements and the application of appropriate employment sanctions, to ensure compliance by all Users with the privacy obligations hereunder; and
- ensure that upon termination of employment or affiliation with the Contractor, each User's ability to access Personal Information is terminated, any and all Personal Information in the possession of any such User is returned or, at Hydro Ottawa's option, destroyed as directed by Hydro Ottawa (provided Hydro Ottawa is provided with written confirmation from an officer of the Contractor attesting to such destruction), and such User is reminded of the continuing obligation of confidentiality with respect to all Personal Information.

8. **Termination by Hydro Ottawa.** In the event that the Contractor is not in compliance with Privacy Laws, as determined by Hydro Ottawa, Hydro Ottawa shall be able to terminate the Work immediately and without further notice to the Contractor, without prejudice to any other rights or remedies Hydro Ottawa is entitled to at law or in equity.
9. **Return of Personal Information.** In the event of any termination of the Work, the Contractor shall forthwith return to Hydro Ottawa, as directed by Hydro Ottawa, all Personal Information held by the Contractor and any of its Personnel pursuant to the Work or, at Hydro Ottawa's option, destroy such Personal Information as directed by Hydro Ottawa and provide Hydro Ottawa with written confirmation from an officer of the Contractor attesting to such destruction.
10. **Survival.** The obligations in these Privacy Rules shall survive the termination or expiration of the Work to the extent required by Privacy Laws.

**Schedule B – Cost Summary Sheet**

**Deliverable 1**

	<b>Total Price (US Currency and Excluding Taxes)</b>
<b>Deliverable 1 (as set out in Schedule A)</b>	<b>\$175,000.00</b>

**Deliverable 2**

The hourly billing rates will be charged for Deliverable 2 at the following rates.

<b>Staff</b>	<b>Hourly Billing Rate (US Currency and Excluding Taxes))</b>
Steve Fenrick	\$325.00
Erik Sonju	\$250.00
Matt Sekeres	\$190.00
David Williams	\$125.00
Other Staff	\$50.00 to \$150.00

**Appendix 1 to Schedule B**

**Hydro Ottawa's Expense Policy**

**TRAVEL**

1. The Contractor personnel and/or Subcontractor shall travel by the most practical and economical means possible.
2. When travelling by automobile or taxi, if feasible, The Contractor personnel and/or Subcontractor should travel together to reduce costs.
3. When available and practical, air travel should be booked in economy class.
4. Premium class rail travel is permissible providing it is less expensive than economy air travel.
5. The use of personal automobiles in lieu of rental vehicles or taxis is acceptable when it is more economical to do so.

*Note: Other than the mileage rate referenced below, Hydro Ottawa does not assume any financial and/or insurance responsibility when The Contractor personnel and/or Subcontractor use personal automobiles for business purposes.*

6. The Contractor will be reimbursed for the business use of personal automobiles based on current Hydro Ottawa mileage rates which the Contractor shall confirm with Hydro Ottawa prior to a request for reimbursement
7. When renting automobiles for business travel, The Contractor and/or Subcontractor shall rent up to "mid-size" automobiles unless travelling in a group of 3 or more, when "full-size" rentals are permitted.

**MEALS**

1. The Contractor will be reimbursed for all reasonable meal expenses while travelling on Hydro Ottawa business.
2. Gratuities related to business dining are not to exceed 15%.
3. Individual bills should be obtained when travelling on business and dining with fellow Hydro Ottawa employees.
4. Room service and/or mini bar food items are not reimbursable.

**ACCOMMODATION**

1. Accommodation expenses will be reimbursed for standard guestrooms.

*Note: Room upgrades are permissible due to last minute/urgent travel when standard rooms are unavailable.*

**OTHER**

1. Original receipts (with details on the date, description of item/service purchased, purchase amount and itemized taxes) must be kept and be made available upon request.

*Note: On an exception basis, a credit card summary can be used to replace a lost receipt.*

2. Travel and/or accommodation cancellation charges for reasons outside the control of The Contractor are reimbursable.

**EXCLUSIONS**

Examples of items that are not reimbursable include:

1. fines/traffic violations
2. premium rates for luxury hotels and automobiles
3. alcohol
4. entertainment/hospitality

***Note:** Emergency dry cleaning costs are reimbursable.*

**INTERROGATORY RESPONSE - CCC-9**

**CCC-9**

EXHIBIT REFERENCE:

**(Ex. 1-1-8, p. 19 and Ex. 1-1-9, Attachment A)**

SUBJECT AREA: Business Plan

The evidence states that during the internal budgeting process, the initial levels of OM&A submitted by the various Divisions within the utility resulted in a compound annual growth rate of 3.5% over the 2021-2025 period. In step with its commitment to continuous improvement and with customers preferences for minimizing rate increases, Hydro Ottawa then applied a customer OM&A escalation factor to contain upward pressure on operational expenses and to embed productivity expectations throughout the 2021-2025 period:

a) Please provide a detailed timeline of the budgeting process;

b) Please provide all direction (budget memos, guidelines, assumptions etc.) provided to employees regarding the 2021-2025 budgeting process beyond that set out in Attachment A (Ex. 1-1-9);

c) Please provide the original OM&A budget referred to above.

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**RESPONSE:**

a) The timeline of the budgeting process is included in the Key Milestones section of Attachment 1-1-9(A): Corporate Memorandum - 2020-2025 Priorities and Budget Guidelines.

b) No additional written directions were provided to employees.

- 1 c) Please see the response to interrogatory OEB-140 part (a).

**INTERROGATORY RESPONSE - CCC-10**

**CCC-10**

EXHIBIT REFERENCE:

**(Ex. 1-1-8, p. 25)**

SUBJECT AREA: Cost Allocation

Hydro Ottawa engaged Elenchus Research Associates to undertake a Cost Allocation Model study. Please file the terms of Reference for the Elenchus work. What is the expected cost of the consulting engagement?

**RESPONSE:**

The Terms of Reference for the retainer with Elenchus Research Associates ("Elenchus") has been appended as Attachment CCC-10(A): Executed Agreement for Cost Allocation Study.

The engagement with Elenchus remains ongoing and is contemplated to continue into subsequent phases of this proceeding.

The budgeted cost of Hydro Ottawa's full engagement with Elenchus is \$140,000.

109/21

THIS AGREEMENT dated the <sup>2<sup>nd</sup></sup> day of April 2019. ("Effective Date")

**BETWEEN:**

**HYDRO OTTAWA LIMITED**, hereinafter called the "Hydro Ottawa"

**AND:**

**ELENCHUS RESEARCH ASSOCIATES INC.**, hereinafter called the "Contractor"

**WHEREAS** Hydro Ottawa requires services of the Contractor to provide a cost allocation study in support of Hydro Ottawa's 2021 Custom Incentive Rate-setting (Custom IR) application to the Ontario Energy Board (OEB);

**AND WHEREAS** the Contractor has the requisite experience and skill to provide the services and the Contractor has represented that it can provide such consulting services, as more fully set out in Schedule A in accordance with the terms and conditions hereinafter set forth;

**NOW THEREFORE** in consideration of the mutual covenants, terms and conditions contained herein and for other good and valuable consideration, the receipt and sufficiency of which is hereby irrevocably acknowledged, the parties hereto agree as follows:

## **1. Definitions**

"Affiliate" means, with respect to any party,

- (i) any legal entity of which the securities or other ownership interests representing fifty per cent (50%) or more of the equity or fifty percent (50%) or more of the ordinary voting power or fifty percent (50%) or more of the general partnership interest are, at the time such determination is being made, owned, Controlled or held, directly or indirectly, by such legal entity, or
- (ii) any legal entity which, at the time such determination is being made, is Controlling or under common Control with, such legal entity. As used herein, the term "Control", whether used as a noun or verb, refers to the possession, directly or indirectly, of the power to direct, or cause the direction of, the management or policies of a legal entity, whether through the ownership of voting securities, by contract or otherwise.

"Agreement" means these Terms and Condition and all recitals, schedules and appendices thereto, as they may be amended, revised, restated or replaced at any time and from time to time.

"Applicable Law" means any domestic or foreign law, rule, statute, subordinate legislation, regulation, by-law, order, ordinance, protocol, code, guideline, treaty, policy, notice, direction or judicial, arbitral, administrative, ministerial or departmental judgment, award, decree, treaty, directive, or other requirement or guideline published or in force at any time during the Term which applies to or is otherwise intended to govern or regulate any Person, property, transaction, activity, event or other matter, including any rule, order, judgment, directive or other requirement or guideline issued by any Government Authority.

"Business Days" and "Normal Business Hours" means the hours from 07:00 to 17:00. Eastern Time, on the weekdays from Monday to Friday inclusive with the exception of statutory holidays observed by Hydro Ottawa.

"Contractor" means party in contract with Hydro Ottawa or the duly authorized representative. This shall include the Contractor, its officers, directors, employees, agents, assigns, and subcontractors.

**"Government Authority"** means any government, parliament, legislature or any regulatory authority, agency, commission or a board of any government, parliament or legislature, or any political subdivision thereof, or any court or, without limitation to the foregoing, any other law, regulation or rule making entity or any person acting under the authority of any of the foregoing or any other authority charged with the administration or enforcement of laws, including the Privacy Commissioner of Canada and the Information and Privacy Commissioner of Ontario.

**"Handle"** means to access, receive, collect, use, store, process, record, disclose, transfer, retain, dispose of, destroy, manage or otherwise handle.

**"Hydro Ottawa"** and **"HOL"** mean Hydro Ottawa Limited.

**"Industry Standards"** includes, but are not limited to

- (a) the provision of any and all labour, supplies, equipment and other goods or services that are necessary and can reasonably be understood or inferred to be included within the scope of the Agreement or customarily furnished by Persons providing Services of the type provided hereunder in similar situations in Ontario and;
- (b) Adherence to commonly accepted norms of ethical business practices.

**"Person"** means any individual, partnership, franchise holder, association, corporation or any Government Authority and their respective employees, agents or representatives.

**"Personal Information"** means information about an identifiable individual, including without limitation any information defined or deemed as such pursuant to any Applicable Laws or regulations related to privacy or data protection, that is transferred to, collected or compiled by, or otherwise under the control or custody of the Contractor and that (i) is about customers or employees of or Contractors to the Hydro Ottawa or its Affiliates or (ii) is otherwise held by the Contractor for or on behalf of Hydro Ottawa or its Affiliates.

**"Privacy Laws"** means all federal, provincial, state, municipal or other applicable statutes, laws or regulations of any Government Authority in any jurisdiction governing the Handling of information about an identifiable individual, including the Personal Information and Protection of Electronic Documents Act, S.C. 2005, c. 5 ("PIPEDA") and equivalent provincial and foreign legislation.

**"Representatives"** in reference to party, means the party's directors, officers, employees, agents and contractors, the party's Affiliates, and all such Affiliates' respective directors, officers, employees, agents and contractors.

**"Security Breach"** means any breach of Section 18 that Hydro Ottawa determines has caused or may cause unauthorized Handling of Personal Information or Hydro Ottawa Confidential Information.

**"Services"** means the requested services set out in Schedule A.

## **2. Priority of Documents**

The documents specified below form part of and are incorporated into the Agreement. If there is a discrepancy between the wording of these Terms and Conditions and the wording of any document, which appears on the list, the wording of these Terms and Conditions shall prevail. If there is a discrepancy between the wording of any documents which appear on the list, the

wording of the document which first appears on the list shall prevail over the wording of any document which subsequently appears on the list:

- a) These General Terms and Conditions
- b) Schedule A – Statement of Work
- c) Schedule B – Cost Summary Sheet

### **3. Contracting Authority**

The Contract Authority is:

Farah Butt, Senior Procurement Agent  
Hydro Ottawa Limited  
3025 Albion Road, North, P.O. Box 8700,  
Ottawa, ON K1G 3S4

Telephone: (613) 738-5499 ext. 2554  
Email: [farahbutt@hydroottawa.com](mailto:farahbutt@hydroottawa.com)

The Contract Authority is responsible for the management of this Agreement. Only changes to this Agreement that are authorized in writing by the Contract Authority are binding on Hydro Ottawa.

### **4. Hydro Ottawa Project Authority**

The Hydro Ottawa Project Authority is:

April Barrie, Manager, Rate and Revenue  
3025 Albion Road, North, P.O. Box 8700  
Ottawa, ON K1G 3S4

Telephone: (613) 738-5499 ext. 2106  
Email: [aprilbarrie@hydroottawa.com](mailto:aprilbarrie@hydroottawa.com)

The Hydro Ottawa Project Authority is responsible for all matters concerning the technical content of the Services under this Agreement. Any proposed changes to the scope of the Services must be discussed with the Hydro Ottawa Project Authority, but only the Contract Authority has the authority to amend this Agreement.

### **5. Contractor's Contact**

The Contractor Contact is:

John Todd, President  
Elenchus Research Associates Inc.  
34 King Street East, Suite 600  
Toronto, ON M5C 2X8

Telephone: (416) 348-9910  
Email: [jtodd@elechus.ca](mailto:jtodd@elechus.ca)

## 6. Compliance with Applicable Laws

- (1) The Contractor shall, at its sole expense, obtain and maintain all permits, licenses and approvals required by Applicable Law or Governmental Authority to conduct its business generally and to perform its duties under this Agreement and to undertake and complete the Services. The Contractor and its Representatives shall comply with all Applicable Law, in undertaking and completing the Services.
- (2) Where there is a conflict between any provisions of the above-mentioned authorities, the most stringent provision will govern.

## 7. Term

- (1) Subject to the provisions for termination as hereinafter provided, the term of this Agreement shall commence on the Effective Date and shall terminate December 31, 2020 (the "Initial Term"), unless terminated earlier in accordance with the terms herein or otherwise extended by the parties.
- (2) Subject to subsection 7(3), this Agreement may be extended by Hydro Ottawa for an additional three (3) month period under the same terms and conditions ("Renewal Term"). Collectively, the Initial Term and the Renewal Term are referred to as the Term.
- (3) If Hydro Ottawa wishes to extend the Initial Term, Hydro Ottawa shall give written notice to the Contractor not less than thirty (30) days prior to the expiration of the Initial Term.
- (4) If no notice is given that Hydro Ottawa wishes to extend the Initial Term, within the time allowed, or if the Contractor should reject Hydro Ottawa's request to extend the Agreement, this Agreement shall end upon the expiration of the Initial Term.

## 8. Termination and Default

- (1) Each of the following will constitute an Event of Default by the Contractor:
  - a) The Contractor becomes insolvent, makes a general assignment for the benefit of creditors, permits a Receiver to be appointed for its business or assets or becomes subject to any proceedings under the **Bankruptcy and Insolvency Act**, R.S.C. 1985, c. B-3 or any statute of any provinces, state or other jurisdiction relating to insolvency or the protection of creditor's rights.
  - b) The Contractor fails to perform any material covenant or obligation set forth in this Agreement (except to the extent constituting a separate Event of Default) if such failure is not remedied within ten (10) Business Days after written notice of such failure from Hydro Ottawa.
  - c) Any representation made by the Contractor is not materially true or correct in any material respect when made and is not made materially true or correct within two (2) Business Days after receipt by the Contractor of written notice of such fact from Hydro Ottawa.
  - d) The Contractor fails to conform to all Applicable Law.
  - e) The Contractor has breached or is in breach of Section 18.
- (2) If any Event of Default occurs, upon written notice to the Contractor, Hydro Ottawa may terminate this Agreement.

- (3) Despite the foregoing, upon the occurrence of an Event of Default referred to in paragraph 1(a), this Agreement shall automatically terminate without notice, act or formality, effective immediately before the occurrence of such Event of Default.
- (4) Any termination shall be without prejudice to the rights accruing and remedies subsisting under this Agreement at the date of such termination. In addition, Hydro Ottawa shall be entitled to obtain damages from the Contractor for any losses incurred directly resulting from such Event of Default. Furthermore, in addition to its rights of set-off available to it under this Agreement or at law, Hydro Ottawa may hold back payment or set-off its obligation to make such payment against any payments owed to it if the Contractor fails to comply with its obligations on termination.
- (5) Notwithstanding anything to the contrary contained herein, Hydro Ottawa may, at any time prior to the completion of the work, terminate the Agreement as regards all or any part of the uncompleted work, by giving written notice to the Contractor. Upon receipt of a termination notice, the Contractor shall cease work in accordance with the notice, but shall proceed to complete such part or parts of the work that are not affected by the termination notice.
- (6) In the event of a termination notice being given pursuant to this Section, the Contractor shall be entitled to be paid, to the extent that costs have been reasonably and properly incurred for the purposes of performing the Agreement and to the extent that the Contractor has not already been so paid or reimbursed by Hydro Ottawa, on the basis of the pricing set out in the Agreement, for all work completed, inspected and accepted in accordance with the Agreement.
- (7) Notwithstanding Section 9, if an event of force majeure continues for 30 days or more, Hydro Ottawa, in its absolute discretion, may terminate this Agreement. In such case, the parties agree that neither will make a claim against the other for damages, costs, expected profits or any other loss arising out of the termination or the event that gave rise to the force majeure.
- (8) Upon termination, whether pursuant to this Section or the expiry of the Agreement, the Contractor shall provide a copy of all Hydro Ottawa's records in the format acceptable and indexing to Hydro Ottawa without any delay.

## **9. Force Majeure**

- (1) Neither party shall be liable in damages or have the right to terminate this Agreement for any delay or default in performing hereunder if such delay or default is caused by conditions beyond the party's control including, but not limited to Acts of God, Government restrictions (including the denial or cancellation of any permits or other necessary license), wars, insurrections, fires, floods or unusually severe weather, disruptions resulting from labour disputes, governmental or regulatory action and/or any other cause beyond the reasonable control of the party whose performance is affected ("**Force Majeure**").
- (2) The performance requirements specified in the Agreement and affected by such causes shall be extended by periods equal to the duration of the event that gave rise to the Force Majeure. The Contractor shall immediately notify Hydro Ottawa of any event or situation that might possibly create a situation of Force Majeure. Acknowledgement of any Force Majeure is subject to the submission by the Contractor of a written confirmation of proof of the events or circumstances forming the basis of the Contractor's claim regarding Force Majeure.

## 10. Representations and Warranty

- (1) The Contractor covenants and agrees with and represents and warrants to Hydro Ottawa as follows and covenants and agrees that such representations and warranties shall remain true and correct throughout the Term:
- (a) Status. The Contractor is duly constituted, validly existing and in good standing under the laws of its governing jurisdiction.
  - (b) Authority. The Contractor has the necessary power, authority and capacity and good and sufficient right to enter into this Agreement on the terms and conditions herein set forth, and the execution and performance of this Agreement will not conflict with, or constitute a breach under, any agreement to which it is a party or any judgment, order, statute or regulation which is applicable to the Contractor.
  - (c) Experience and Financial Capacity. The Contractor understands the requirements of Hydro Ottawa as set out in this Agreement and that it possesses the skills, know-how and ability to satisfactorily meet such requirements in the provision of the Services to the standards required in this Agreement. The Contractor has the experience, ability and financial capacity to perform and fulfill its obligations hereunder, and covenants to maintain during the Term, the financial and other ability and authority to perform and fulfill its obligations hereunder.
  - (d) Quality of Services. The Services shall be performed fully and diligently in good faith and in a professional and competent manner by persons qualified and skilled in their occupations and all Services will be provided in accordance with:
    - (i) the Agreement;
    - (ii) Industry Standards; and
    - (iii) in accordance with Applicable Law.
  - (e) Conflict of Interest. The Contractor has no interest and will not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of service under this Agreement.
  - (f) Valid, Binding and Enforceable. This Agreement constitutes a valid and binding obligation of the Contractor, enforceable against the Contractor in accordance with its terms and conditions.
  - (g) HST Registrant. The Contractor is a HST Registrant in good standing; and the Contractor is not a non-resident of Canada within the meaning of the Income Tax Act (Canada), as amended.

## 11. Indemnification

- (1) The Contractor shall indemnify, defend, and save harmless Hydro Ottawa, together with Hydro Ottawa's Representatives and assigns, from and against any and all loss, damage, injury, or safety infraction of the Contractor, or its Representatives, under all conditions and all actions, causes of action, proceedings, suits, claims, demands, losses, damages, penalties, costs (including the payment of all legal fees), expenses, obligations and liabilities in connection therewith, attributable to, related to or arising out of:
- (i) breaches of the Contractor's, or its Representatives', obligations herein,
  - (ii) any misrepresentation, inaccuracy, incorrectness or breach of any representation or warranty made by the Contractor contained in this Agreement and/or

(iii) any of the Contractor's, its Representatives' or transferees', acts or omissions, whether negligent, criminal, fraudulent or otherwise

- (2) Hydro Ottawa shall give notice to the Contractor of any claim, action, suit or proceeding referred to in subsection 11(1) and the Contractor shall at its own expense, to the extent requested by Hydro Ottawa, participate in or conduct the defence of any such claim, action, suit or proceeding and any negotiations for settlement of the same, but the Contractor shall not be liable to indemnify Hydro Ottawa for payment of any settlement unless it has consented to the settlement
- (3) Hydro Ottawa may elect to participate in or conduct the defence of any such claim, action, suit or proceeding by notifying the Contractor in writing of such election without prejudice to any other rights or remedies of Hydro Ottawa under this Agreement, at law or in equity. Each Party participating in the defence shall do so by actively participating with the other's counsel. If the Contractor is requested by Hydro Ottawa to participate in or conduct the defence of any such claim, action, suit or proceeding, Hydro Ottawa agrees to co-operate with and assist the Contractor to the fullest extent possible in the claim, action, suit or proceeding and any related settlement negotiations. If Hydro Ottawa conducts the defence of any such claim, action, suit or proceeding, the Contractor agrees to co-operate with and assist Hydro Ottawa to the fullest extent possible in the claim, action, suit or proceeding and any related settlement negotiations.

## **12. Insurance**

- (1) Before commencing any work under this Agreement, the Contractor shall provide a certified copy of its liability insurance certificate attesting its coverage by a General Liability Insurance Policy. Hydro Ottawa must be named as an additional insured by added endorsement on the Contractor's policy. The coverage shall be two million dollars (\$2,000,000) per occurrence involving bodily injury or property damage. Such coverage must be maintained continuously during the course of the work under the Agreement, and renewal certificates must be provided as required, satisfactory in form to Hydro Ottawa. Failure by the Contractor to ensure that the required insurance coverage remain in force during the course of the Agreement will result in the immediate termination of the Agreement without notice and without penalty to Hydro Ottawa.
- (2) Where applicable, a Contractor shall carry an all-inclusive Third Party Automobile Liability Insurance Policy, with a minimum limit of two million dollars (\$2,000,000) per occurrence.
- (3) The Contractor shall maintain Professional Liability insurance coverage (minimum \$1,000,000 per claim) throughout the Term of the Agreement, and for a period of three (3) years after the date of contract completion.
- (4) Hydro Ottawa shall be named as an additional insured on all of the above-mentioned Contractor's insurance policies.

## **13. Subcontracting**

- (1) In providing the Services contracted for under this Agreement, the Contractor shall act as a single point-of-accountability vendor; namely as the "Prime Contractor", and who, in acting as the Prime Contractor, shall assume complete and overall contractual responsibility for the provision of the Services and related activities and provide for all ongoing product and performance warranties to the extent set out in this Agreement. The provision of any products or services by any Subcontractors shall not in any way whatsoever release or discharge the Contractor or derogate from the covenants, representations and warranties provided by the Contractor under this Agreement. Notwithstanding the provision of products or services by any

Subcontractors, the sole responsibility for the provision of all products or services during the Term lies with the Contractor and in no event shall Hydro Ottawa be compelled to seek or pursue remedy against any Subcontractors.

- (2) Notwithstanding subsection 13(3), the Contractor agrees that it is liable for the acts and omissions of its Representatives and Subcontractors in performing the Services. This subsection 13(2) is in addition to any and all of the Contractor's liabilities under the Agreement and under the general application of law. The Contractor shall advise its Representatives of their obligations under the Agreement and shall be responsible for their compliance with the applicable terms of the Agreement. In addition to any other liabilities of the Contractor pursuant to the Agreement or otherwise at law or in equity, the Contractor shall be liable for all losses or claims arising from any breach of the Agreement resulting from the actions of the above mentioned Representatives in performing the Services. This subsection shall survive the termination or expiry of this Agreement.
- (3) The Contractor shall not subcontract or assign the whole or any part of the Agreement without providing written notice to Hydro Ottawa prior to the effective date of the subcontract or assignment. Such consent shall not be unreasonably withheld by Hydro Ottawa and is subject to the terms and conditions that may be imposed by Hydro Ottawa. Without limiting the generality of the conditions which Hydro Ottawa may require prior to consenting to the Contractor's use of a subcontractor, every contract entered into by the Contractor with a Subcontractor shall adopt terms and conditions substantially similar to the terms and conditions of this Agreement as far as applicable to those parts of the Services provided by the Subcontractor. Nothing contained in the Agreement shall create a contractual relationship between any Subcontractor or its Representatives and Hydro Ottawa.
- (4) In performing this Agreement, the Contractor shall operate as an independent Contractor, maintaining its own organization as a distinct and separate legal entity from Hydro Ottawa. The Contractor and its Representatives shall have no authority to hold themselves out as acting on behalf of or to legally bind Hydro Ottawa. Nothing in this Agreement shall be deemed to constitute a partnership or a joint venture or to create any fiduciary relationship between Hydro Ottawa and the Contractor.

#### **14. Invoices**

- (1) Invoices must be submitted in the name of the Contractor and are not to be submitted prior to the performance of the Services. They must show the name and address of the Contractor, together with date, reference to purchase order number, amount charged for services performed during the period, additional charges if applicable, applicable taxes, and description of services provided.
- (2) The preferred method of receiving invoices is via e-mail addressed to the Accounts Payable Department at [accountspayable@hydroottawa.com](mailto:accountspayable@hydroottawa.com). Invoices can also be mailed to the Accounts Payable Department at Hydro Ottawa's office at 3025 Albion Road North, P.O. Box 8700, Ottawa, Ontario, K1G 3S4.

#### **15. Payment**

- (1) The Contractor's pricing information is contained in Schedule B. Payment shall be based on price indicated in Schedule B, excluding taxes, and, subject to subsections 15(3), (4), and (5).
- (2) Hydro Ottawa will reimburse the Contractor for pre-approved travel, meal and accommodation expenses in accordance with **Appendix 1 to Schedule B – Hydro Ottawa Expense Policy**.

- (3) Payment will only be made if a duly completed invoice and any other documents required by the Agreement have been submitted, and verified by Hydro Ottawa, in accordance with the terms of the Agreement.
- (4) Hydro Ottawa shall notify the Contractor within fifteen (15) Business Days of receipt of an invoice or revised invoice of any inadequacy of the invoice or of the supporting documentation and, where any such notice is given within that period, the date for payment of the amount invoiced shall be postponed until the Contractor remedies the inadequacy to the satisfaction of Hydro Ottawa.
- (5) Subject to subsection 15(4), payment will be made within thirty (30) days following the date of receipt of a duly completed invoice, in accordance with Section 14.

#### **16. Acceptance**

No part of the Services will be accepted unless approved by Hydro Ottawa and Hydro Ottawa is satisfied that the work completed fully complies with the true meaning and intent of the specifications set out in Schedule A. Such acceptance, however, shall not impair any claim that Hydro Ottawa may have for the replacement of defective work or material.

#### **17. Records and Audit**

- (1) The Contractor shall keep proper accounts and records of the cost to the Contractor of the Services provided and of all expenditures or commitments made by the Contractor in connection therewith, and shall keep all books and records including invoices, receipts, vouchers, cheques, and bank statements relating thereto. The Contractor shall not, without the prior written consent of Hydro Ottawa, dispose of any such accounts, records, invoices, receipts or vouchers until the expiration of five (5) years after final payment under this Agreement, or until the settlement of all outstanding claims and disputes, whichever is later.
- (2) All such accounts and records as well as any invoices, receipts, vouchers, cheques, and bank statements shall at all times during the retention period referred to in subsection 17(1) be open to audit, inspection and examination by the authorized representatives of Hydro Ottawa, who may make copies and take extracts thereof. The Contractor shall furnish all such information as the representatives of Hydro Ottawa may from time to time require with respect to such accounts, records, invoices, receipts and vouchers.

#### **18. Confidentiality, Privacy and Security**

- (1) Each party agrees to:
  - (i) keep confidential all Confidential Information disclosed to by the other party during the term of this Agreement and
  - (ii) not to disclose any of such Confidential Information to any third party or any of its Representatives except to such of them to whom disclosure is necessary in connection with this Agreement and who have agreed to be bound by the obligations of confidentiality under this Agreement. "**Confidential Information**" means any proprietary ideas, plans and information, including without limitation, information of a technical or business nature (including without limitation, all trade-secrets, technology, financial information, intellectual property, any information relating to human resources matters, data, summaries, reports, the terms of this Agreement, or customer lists, whether oral or written and if written, however produced or reproduced) of a party or any of its Affiliates that is received by or otherwise disclosed by one party to the other party that is marked proprietary or confidential, or that would logically be considered proprietary or confidential under the circumstances of its disclosure. In addition, no

party shall directly or indirectly use to its own advantage any such Confidential Information. If this Agreement is terminated at any time, the parties agree that such Confidential Information provided and all copies thereof (excluding Confidential Information in oral form that has not been put into tangible form) will be immediately returned to the disclosing party or, at the disclosing party's option, destroyed. Notwithstanding the foregoing, the receiving party shall be entitled to keep, subject always to all the provisions of this Agreement, one copy of any notes, analyses, reports or other written material prepared by, or on behalf of, the receiving party that contain Confidential Information for its records. In the event of any destruction of Confidential Information as set forth above, the receiving party shall provide to the disclosing party, upon request, a certificate of one of its senior officers certifying such destruction.

- (2) The Contractor shall:
  - (i) collect, use, disclose, and retain Personal Information only as required to fulfill its obligations pursuant to this Agreement;
  - (ii) take appropriate measures to ensure the privacy and security of all Personal Information, including taking measures to prevent unauthorized access, collection, use, disclosure, copying, modification or disposal; and
  - (iii) comply with all Applicable Law related to privacy or data protection.
- (3) Confidential Information shall not include information that:
  - (i) is already known to the recipient at the time of disclosure;
  - (ii) is or becomes publicly known otherwise than by a breach of this Agreement by the receiving party or its Representatives or any third person to whom it discloses such Confidential Information;
  - (iii) is communicated to a third party with the express written consent of the disclosing party;
  - (iv) is independently developed by the recipient without the benefit of having received said confidential information;
  - (v) is lawfully required to be disclosed, provided that, prior to making such disclosure, to the extent permitted by law, the recipient shall immediately give the disclosing party written notice and cooperate with the disclosing party in applying for an order to prohibit or restrict such disclosure and/or to assure confidential handling of such Confidential Information.
- (4) The Contractor acknowledges and agrees that all Personal Information collected or accessible to the Contractor in the course of providing the Services, including Personal Information about Hydro Ottawa Personnel constitutes Confidential Information of Hydro Ottawa to which the provisions of subsection 18(1) apply, except to the extent such provisions are inconsistent with this subsection 18(4), which prevails with respect to Personal Information. In addition to the obligations set out in Section 18(1) and notwithstanding the disclosure rights set out in subsection 18(2), the Contractor shall:
  - (i) comply with the Privacy Rules set out in Appendix 1 to Schedule A;
  - (ii) Handle Personal Information only as required to fulfil its obligations pursuant to this Agreement;
  - (iii) take appropriate measures to ensure the privacy and security of all Personal Information, including taking measures to prevent unauthorized Handling;
  - (iv) if requested by Hydro Ottawa, within five Business Days from the date upon which the request was made by Hydro Ottawa, either: (a) update, correct or delete Personal Information or modify the individual's choices with respect to the permitted use by Hydro Ottawa of such Personal Information; or (b) provide access to Hydro Ottawa to enable it to perform the activities described in paragraph (a) itself; and
  - (v) comply with Privacy Laws.

- (5) In addition to all other requirements set forth in this Agreement, the Contractor shall take all steps required to update and maintain its security and back-up processes and procedures, its hardware, software, systems, facilities and services, and the requirements set out in Hydro Ottawa's security policies, so that they are, at all times throughout the Term, consistent with Industry Standards in North America. Without limiting the foregoing, the Contractor shall protect all Confidential Information of Hydro Ottawa and Personal Information with security measures appropriate to the sensitivity of the Confidential Information and Personal Information while preserving its integrity and availability as required to perform the Services. Depending on the nature of the Confidential Information and Personal Information and the circumstances, these measures may include physical controls (for example, keeping Personal Information in locked cabinets), password protection of electronic files, encryption of data, or other measures such as firewalls, anti-virus software and other means to protect the security of systems or file storage areas. The Contractor and its Subcontractors may update or modify their security measures from time to time provided that prior written notice of such updates and modifications is given to Hydro Ottawa and such updates and modifications do not result in the degradation of the overall security of the Services.
- (6) If Hydro Ottawa requests that the Contractor provide a copy of its or any Contractor Subcontractor's, privacy policy, security policy or other similar documents, the Contractor shall promptly provide a copy of such policies without charge to Hydro Ottawa.
- (7) Unless expressly permitted hereunder, the Contractor shall keep all Confidential Information of Hydro Ottawa and Personal Information that is stored by the Contractor in tangible form physically segregated from other tangible forms of information, and shall keep all Confidential Information of Hydro Ottawa and Personal Information that is stored by Contractor in electronic form logically segregated from any other information of Contractor, Contractor Subcontractors or their respective customers.
- (8) Upon the occurrence of any actual or suspected Security Breach, the Contractor shall do the following:
- (i) immediately notify Hydro Ottawa by telephone and in writing;
  - (ii) take all steps necessary to enforce against any Person that is or may be engaging in such unauthorized Handling any rights that the Contractor has to require such Person to comply with any obligation of confidence to the Contractor and to cease such unauthorized activities;
  - (iii) do all things, execute all documents and give all assistance reasonably required by Hydro Ottawa to enable Hydro Ottawa to enforce against any Person that is or may be engaging in such unauthorized Handling any rights that Hydro Ottawa has to require such Person to comply with any obligation of confidence to the Hydro Ottawa and to cease such unauthorized activities; and
  - (iv) if the Security Breach involves Personal Information, then, if requested by Hydro Ottawa, communicate with the media and affected Persons (by press release, telephone, letter, call centre, website or any other method of communication) to explain the occurrence of the Security Breach and the remedial efforts being undertaken. The content and method of any such communications will be determined by Hydro Ottawa, acting reasonably.
- (9) The Contractor acknowledges that any violation of the provisions of this Section 18 may cause irreparable damage or injury to Hydro Ottawa, the exact amount of which may be impossible to ascertain, and that, for such reason, in addition to any other remedies available to Hydro Ottawa, Hydro Ottawa is entitled to proceed immediately to court in order to obtain, and the Contractor shall consent to, interim, interlocutory, and final injunctive relief restraining the

Contractor from breaching, and requiring the Contractor to comply with, its obligations under this Section 18, without a requirement that a finding of irreparable harm or other criteria for the awarding of injunctive relief be made. The Contractor acknowledges the importance to Hydro Ottawa of the Contractor's strict compliance with the terms of this Section 18 and acknowledges that Hydro Ottawa's interest in the strict enforcement of this Section 18 will outweigh the balance of convenience or harm that the Contractor may suffer as a result of the strict enforcement of this Section 18. Nothing in this subsection will be construed to limit the right of a party to obtain injunctive relief in any other circumstance in which it may be otherwise entitled to such relief.

- (10) Each party shall be responsible for any breach of this Agreement by the party, its affiliates, its Representatives and any person to whom it discloses any Confidential Information. Full and faithful performance by each of the parties hereto of all obligations under this Agreement is the essence of this Agreement. Each of the parties hereto acknowledges that monetary damages are not an adequate remedy for violations of the obligations of confidentiality under this Agreement and that any non-compliance or breach thereof shall result in irreparable harm to the disclosing party, and that in such event the disclosing party shall be entitled to equitable relief, including injunctive relief, without prejudice to any other remedies available to the said disclosing party.

## 19. Ownership of Work Product

- (1) The Contractor will promptly disclose and provide in writing to Hydro Ottawa all works, products, discoveries, developments, designs, improvements (whether or not patentable, and whether or not at a commercial stage, or registrable under copyright or similar statutes) which are authored, made, conceived, or reduced to practice in the course of rendering the Services and provided by the Contractor (either alone or jointly with others) during the period the Contractor provides the Services including any concepts, ideas, suggestions and approaches related thereto or contained therein (collectively, the **"Work Products"**).
- (2) Hydro Ottawa shall own all Work Product, arising during the course of the Contractor's obligations to Hydro Ottawa under this Agreement.
- (3) Each party and/or their respective licensors shall retain ownership of all Intellectual Property, that is: (i) proprietary to that party or which a party has a right to sublicense to the other party; and (ii) was created, conceived or developed prior to, or independent of the Contractor's work for Hydro Ottawa (**"Pre-Existing Intellectual Property"**). The Contractor agrees to take such actions and execute such further acknowledgments and assignments as Hydro Ottawa may reasonably request to give effect to this provision.

## 20. Intellectual Property:

- (1) Hydro Ottawa hereby grants the Contractor a limited, revocable, non-exclusive, non-transferable license during the Term:
  - (i) to use the Hydro Ottawa Intellectual Property related to the Services as required and as contemplated by this Agreement; and
  - (ii) to use Hydro Ottawa Marks (defined below) in connection with the Services, in marketing materials related to the Services or as otherwise agreed by the Parties and as pre-approved by Hydro Ottawa.
  - (iii) For the purpose of this Agreement, **"Marks"** means the trademarks, including registered and common law trademarks, trade names, service marks, logos, domain names and designations owned, licensed or used by Hydro Ottawa.
- (2) The Contractor and Subcontractors will have the right to use the Hydro Ottawa Marks only in connection with the Services and only in a manner and form approved in advance in writing by Hydro Ottawa, which approval shall not be unreasonably withheld or delayed. All use of the Hydro Ottawa Marks shall ensure to the benefit of Hydro Ottawa. All right, title and interest in

- and to the Hydro Ottawa Marks remain with Hydro Ottawa and upon termination of the Agreement for any reason, the Contractor and Subcontractors will have no further right to use the Hydro Ottawa Marks and will immediately cease and desist use of them.
- (3) Hydro Ottawa may terminate a foregoing license granted to the Contractor if, in its reasonable discretion, the Contractor's use of the Marks tarnishes, blurs or dilutes the quality associated with the Marks or the associated goodwill and is not in conformance with instructions provided by the licensor, or such problem is not cured within ten (10) Business Days of written notice of breach.
- (4) For the purpose of this agreement, "Intellectual Property" means :
- (i) any and all proprietary rights anywhere in the world provided under: (1) patent law; (2) copyright law (including moral rights); (3) trade-mark law; (4) design patent or industrial design law; (5) semi-conductor chip or mask work or integrated circuit topography law; or (6) any other statutory provision or common law principle applicable to this Agreement, including trade secret law, that may provide a right in either hardware, software, content, documentation, confidential information, trade-marks, ideas, formulae, algorithms, concepts, inventions, processes or know-how generally, or the expression or use of such hardware, software, content, documentation, confidential information, trade-marks, ideas, formulae, algorithms, concepts, inventions, processes or know-how;
  - (ii) any and all applications, registrations, licenses, sub-licenses, franchises, agreements or any other evidence of a right in any of the foregoing;
  - (iii) any and all licenses and waivers and benefits of waivers of the intellectual property rights set out in paragraph (i) or any and all applications, registrations, licenses, sub-licenses, franchises, agreements or any other evidence of a right in any of the foregoing;
  - (iv) all future income and proceeds from the intellectual property rights set out in paragraphs (i) or (ii) above, and all rights to damages and profits by reason of the infringement or violation of any of the intellectual property rights set out in paragraphs (i) or (ii) above.

## 21. Personnel

- (1) The Contractor shall employ, and continue to employ throughout the Term, Personnel with the qualifications and business experience necessary to competently undertake and complete the Services pursuant to this Agreement.
- (2) The Contractor shall provide the services of the resources specified in the Contractor's Proposal dated February, 2019, Mike Roger, Cost Allocation, Rate Design, Andrew Blair, Cost Allocation, Demand Allocators, and John Todd, Regulatory Strategy to perform the Services unless it is impossible to do so for reasons which are beyond its control. In such case, the Contractor shall be responsible for providing replacement(s) that shall be of equal or superior ability and attainment.
- (3) In no event shall the Contractor allow replacement personnel perform any of the Services until the Contractor has obtained the approval of Hydro Ottawa in accordance with subsection (4).
- (4) Prior to replacing personnel, the Contractor shall give written notice to Hydro Ottawa no later than ten (10) business days before the date the proposed replacement is to take effect. The notice shall include the reason for the replacement; and the name, qualifications and experience of the proposed replacement.

## 22. Notices

Any notice required to be given shall be in writing and shall be delivered by hand to the party for which it is intended or sent by electronic mail, prepaid registered mail or prepaid courier directed to such party at the address indicated below, or such other address as any party may stipulate by notice to the other. Any notice delivered by hand or prepaid mail or courier shall be deemed to be received on the date of actual delivery thereof. Any notice delivered by electronic mail shall be deemed to be received on the next day following the date the electronic mail was sent.

### **Hydro Ottawa Limited**

Mailing Address: P.O. Box 8700, Ottawa, Ontario K1G 3S4

Courier Address: Up to 15 May 2019: 3025 Albion Road North, Ottawa, Ontario K1V 9V9

Courier Address: After 15 May 2019: 2711 Hunt Club Road, Ottawa, Ontario K1G 5Z9

**Attention:** Farah Butt, Senior Procurement Agent

Email: [farahbutt@hydroottawa.com](mailto:farahbutt@hydroottawa.com)

### **Elenchus Research Associates Inc.**

Address: 34 King Street East, Suite 600, Toronto, Ontario M5C 2X8

**Attention:** Mr. John Todd, President

Email: [jtodd@elechus.ca](mailto:jtodd@elechus.ca)

## 23. Successors and Assigns

- (1) This Agreement shall enure to the benefit of and be binding upon the parties thereto, and except as otherwise provided therein, upon the executors, administrators, successors, and permitted assigns.
- (2) Notwithstanding subsection 23(1), the Contractor shall not assign its rights under this Agreement, in whole or in part, without the prior written consent of Hydro Ottawa. Hydro Ottawa may apply terms and conditions in respect of such consent.
- (3) Hydro Ottawa may assign its rights under this Agreement, in whole or in part, without the prior written consent of the Contractor.

## 24. Performance

The Services shall be performed in accordance with the approved industrial practices and carried out by technicians or workers skilled and qualified in the type of services required. The Contractor shall conduct itself with the utmost professionalism to ensure good working relations.

## 25. Time of Essence

Time shall be of the essence of this Agreement.

## 26. Conflict of Interest

The Contractor warrants that it presently has no interest and will not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of service under this Agreement.

## 27. Entire Agreement

The terms and conditions set forth in this Agreement constitute the full and final expression of the contract in respect of the Services, and all matters contemplated in this Agreement, and supersedes all prior quotations, purchase orders, correspondence or communications whether written or oral between the Contractor and Hydro Ottawa. Notwithstanding any contrary language in the Contractor's purchase order, correspondence or other form of acknowledgement, the Contractor shall be bound by this Agreement. **ANY ADDITIONAL OR ANY DIFFERENT TERMS ARE REJECTED UNLESS EXPRESSLY AGREED TO IN WRITING BY BOTH HYDRO OTTAWA AND THE CONTRACTOR.**

## 28. Amendments and Waivers

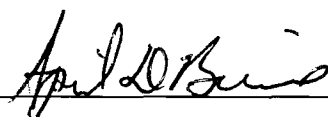
No amendment or waiver of any provision of this Agreement shall be binding on either party unless consented to, in writing, by such party. No waiver of any provision of this Agreement shall constitute a waiver of any other provision, nor shall any waiver constitute a continuing waiver, unless otherwise provided.

## 29. Survival

Any terms, which by their nature are intended to survive the termination of this Agreement, shall continue in full force and effect after termination, which terms shall include, but not be limited to Sections 10, 11, 12, 13, 17, 18 and 19.


**IN WITNESS WHEREOF** this Agreement has been signed by the duly authorized officers of the parties hereto.

### HYDRO OTTAWA LIMITED

Signature:   
Name: April Barrie  
Title: Manager, Rate and Revenue  
Date: April 4, 2019

I have authority to bind the corporation

### ELENCHUS RESEARCH ASSOCIATES INC

Signature:   
Name: John D. Todd  
Title: President  
Date: 2 April 2019

I have authority to bind the corporation

## **Schedule A – Statement of Work**

### **1. INTRODUCTION**

The Contractor shall support Hydro Ottawa in its preparation of a cost allocation study that complies with the Ontario Energy Board (OEB) cost allocation study filing requirements for distribution applications.

The Contractor shall provide services in the following areas:

- a. Derive new load profiles (CP, NCP) for input into the OEB Cost Allocation model (tab '18 Demand Data') based on smart meter and interval meter data provided;
- b. Provide assistance with the development of Hydro Ottawa distributor-specific weighting factors (tab '15.2 Weighting Factors');
- c. Review and advice with OEB Cost Allocation Model and methodology;
- d. Provide assistance with the OEB RRWF as required;
- e. Assist with Rate Design; and
- f. General support as required.

### **2. WORK PLAN**

#### **A. LOAD PROFILES**

The Contractor shall develop the demand allocators required in the OEB's Cost Allocation model based on historic actual load profiles and weather normalization.

The Contractor requires hourly energy consumption data for each rate class. Required format and period length will be finalized based on Hydro Ottawa available information.

The primary Contractors' resource for this work will be Andrew Blair. Other Contractor resources will be used as required subject to Hydro Ottawa's prior approval, or as requested by Hydro Ottawa.

#### **B. WEIGHTING FACTORS**

The Contractor shall provide a template, instructions in its use, and a sample completed template to aid it in the development of its own weighting factors and review the completed template and resulting weighting factors.

#### **C. COST ALLOCATION REVIEW**

The Contractor shall prepare a Hydro Ottawa cost allocation study that complies with the OEB cost allocation study filing requirements for distribution applications issued as amended by future updates to the filing requirements and/or the OEB cost allocation model.  
The Contractor shall also prepare the supporting evidence.

The Contractor shall work with Hydro Ottawa during the OEB process at its different stages and the Contractor could support Hydro Ottawa with respect to the cost allocation section of the submission in:

- preparing and filing the cost allocation section, managing and participating in the interrogatory process related to the cost
- allocation section, and
- preparing final argument.

The primary Contractors resource for this work shall be Mike Roger. Other Contractor resources will be used as required subject to Hydro Ottawa's prior approval, or as requested by Hydro Ottawa.

#### **D. RRWF**

The Contractor shall assist Hydro Ottawa with completion of the Revenue Requirement Work Form (RRWF) or review of Hydro Ottawa's completed models, as required.

#### **E. RATE DESIGN**

The Contractor shall work with Hydro Ottawa in developing the distribution rate design that conforms to the OEB revenue to cost ratios and associated revenue requirement by customer class.

#### **F. GENERAL SUPPORT**

As required by Hydro Ottawa, the Contractor will provide advice and support with respect to the application to the OEB to ensure that the application is complete, provides evidentiary support to Hydro Ottawa, and complies with guidelines established by the OEB for distributors' rate applications.

The Contractor shall also provide assistance throughout the regulatory process until it is complete. The assistance includes support during the written interrogatory process as required.

### **3. SCHEDULE**

An estimate for the timing of the work is provided below.

<b>Tasks</b>	<b>Estimated Completion</b>
Identify data requirements for updating Hydro Ottawa's load profiles	March 2019
Hydro Ottawa to provide the Contractor requested data	April / May 2019
The Contractor to provide Hydro Ottawa updated load profiles and updated demand allocators	June 2019
Hydro Ottawa to complete Cost Allocation models and provide to the Contractor for review	July 2019
The Contractor to prepare or review Cost Allocation and Rate Design evidence	August / September 2019

The Contractor to provide general support as identified by Hydro Ottawa	Ongoing
The Contractor to provide support during regulatory process	Ongoing

## Appendix 1 to Schedule A - Privacy Rules

1. **Continuation of Privacy Laws.** The Contractor shall immediately advise Hydro Ottawa if it believes that any practice or procedure in which it is engaging contravenes applicable Privacy Laws, or if it receives or learns of any complaint or allegation to that effect, but any decision as to changing any such practice shall be made by Hydro Ottawa in its sole discretion. If Hydro Ottawa determines, in its sole discretion, that a practice or procedure would result in violation of applicable Privacy Laws, Hydro Ottawa may amend the Work to vary or eliminate such practice or procedure.
2. **No Disclosure of Personal Information.** Except as expressly permitted herein, the Contractor shall not, without the prior written consent of Hydro Ottawa:
  - disclose any Personal Information to any affiliated or unaffiliated third party, or
  - transmit or provide access Personal Information to any of the Contractor's personnel, or to any facility, outside Canada.
3. **Complaints.** Any privacy related requests or complaints received by the Contractor in relation to the Work shall be immediately referred to Hydro Ottawa. If the Contractor receives any inquiry or complaint relating to Personal Information that has been Handled while performing the Work, the Contractor shall immediately notify Hydro Ottawa thereof in such form and manner, and with such particulars, as Hydro Ottawa may from time to time specify. If Hydro Ottawa notifies the Contractor that it requires assistance in investigating or responding to the inquiry or complaint, the Contractor shall fully cooperate with Hydro Ottawa by furnishing it with complete information concerning its Handling of the Personal Information, including responding, if requested to do so, to any inquiry by a regulatory authority under any applicable Privacy Laws and/or to any complaint. If any inquiry or complaint gives rise to regulatory or court proceedings, the Contractor shall co-operate in the conduct of such proceedings and shall attend hearings and assist in securing and giving evidence and obtaining the attendance of witnesses.
4. **Audit of the Contractor Practices.** Hydro Ottawa may on reasonable notice, audit the Contractor's compliance with these Privacy Rules, PIPEDA and any other Privacy Laws. Hydro Ottawa shall have no duty to conduct such an audit and shall not incur any liability or obligation by reason of doing or not doing so.
5. **Security Measures.** All Personal Information shall be stored in a secure physical and electronic environment meeting or exceeding then-current Industry Standards and satisfactory to Hydro Ottawa in its sole discretion. Promptly upon notice from Hydro Ottawa, the Contractor will undertake, at its sole cost and expense, to remedy any security deficiency or improvement identified or requested by Hydro Ottawa.
6. **Notification of Unauthorized Activities.** The Contractor shall promptly notify Hydro Ottawa in writing upon becoming aware of the loss, theft, or unauthorized Handling of any Personal Information.
7. **Limitations of Access.** The Contractor shall:
  - ensure that only such of its Personnel as have a need to know Personal Information for the performance of the Work have access to Personal Information;
  - not disclose any Personal Information to any third parties other than suppliers approved by Hydro Ottawa in writing who have been retained as an agent of the Contractor to perform the Work, who have signed a written Confidentiality Agreement with substantially

similar obligations of confidentiality as those set out herein and which includes provisions prohibiting such supplier from Handling Personal Information for any purpose other than for the performance of the Work and prohibiting the disclosure by such supplier of any Personal Information to any third party;

- ensure that each person who has such access (a "User") is familiar with the privacy obligations hereunder;
  - take reasonable steps, through training, confidentiality agreements and the application of appropriate employment sanctions, to ensure compliance by all Users with the privacy obligations hereunder; and
  - ensure that upon termination of employment or affiliation with the Contractor, each User's ability to access Personal Information is terminated, any and all Personal Information in the possession of any such User is returned or, at Hydro Ottawa's option, destroyed as directed by Hydro Ottawa (provided Hydro Ottawa is provided with written confirmation from an officer of the Contractor attesting to such destruction), and such User is reminded of the continuing obligation of confidentiality with respect to all Personal Information.
- 8. Termination by Hydro Ottawa.** In the event that the Contractor is not in compliance with Privacy Laws, as determined by Hydro Ottawa, Hydro Ottawa shall be able to terminate the Work immediately and without further notice to the Contractor, without prejudice to any other rights or remedies Hydro Ottawa is entitled to at law or in equity.
- 9. Return of Personal Information.** In the event of any termination of the Work, the Contractor shall forthwith return to Hydro Ottawa, as directed by Hydro Ottawa, all Personal Information held by the Contractor and any of its Personnel pursuant to the Work or, at Hydro Ottawa's option, destroy such Personal Information as directed by Hydro Ottawa and provide Hydro Ottawa with written confirmation from an officer of the Contractor attesting to such destruction.
- 10. Survival.** The obligations in these Privacy Rules shall survive the termination or expiration of the Work to the extent required by Privacy Laws.

**Schedule B – Cost Summary Sheet**

<b>Consultant</b>	<b>Expertise</b>	<b>Hourly Rate (CAD Currency and Excluding Taxes</b>
Mike Roger	Cost Allocation, Rate Design	\$300
Andrew Blair	Cost Allocation, Demand Allocators	\$200
John Todd	Regulatory Strategy	\$400
Other, if required	Analysts/Admin/Etc.	\$100 - \$300

*\* Travel time beyond one hour is determined at 50% of billed hourly rate*

**Appendix 1 to Schedule B**

**Hydro Ottawa's Expense Policy**

**TRAVEL**

1. The Contractor personnel and/or Subcontractor shall travel by the most practical and economical means possible.
2. When travelling by automobile or taxi, if feasible, The Contractor personnel and/or Subcontractor should travel together to reduce costs.
3. When available and practical, air travel should be booked in economy class.
4. Premium class rail travel is permissible providing it is less expensive than economy air travel.
5. The use of personal automobiles in lieu of rental vehicles or taxis is acceptable when it is more economical to do so.

*Note: Other than the mileage rate referenced below, Hydro Ottawa does not assume any financial and/or insurance responsibility when The Contractor personnel and/or Subcontractor use personal automobiles for business purposes.*

6. The Contractor will be reimbursed for the business use of personal automobiles based on current Hydro Ottawa mileage rates which the Contractor shall confirm with Hydro Ottawa prior to a request for reimbursement
7. When renting automobiles for business travel, The Contractor and/or Subcontractor shall rent up to "mid-size" automobiles unless travelling in a group of 3 or more, when "full-size" rentals are permitted.

**MEALS**

1. The Contractor will be reimbursed for all reasonable meal expenses while travelling on Hydro Ottawa business.
2. Gratuities related to business dining are not to exceed 15%.
3. Individual bills should be obtained when travelling on business and dining with fellow Hydro Ottawa employees.
4. Room service and/or mini bar food items are not reimbursable.

**ACCOMMODATION**

1. Accommodation expenses will be reimbursed for standard guestrooms.

*Note: Room upgrades are permissible due to last minute/urgent travel when standard rooms are unavailable.*

**OTHER**

1. Original receipts (with details on the date, description of item/service purchased, purchase amount and itemized taxes) must be kept and be made available upon request.

*Note: On an exception basis, a credit card summary can be used to replace a lost receipt.*

2. Travel and/or accommodation cancellation charges for reasons outside the control of The Contractor are reimbursable.

## **EXCLUSIONS**

Examples of items that are not reimbursable include:

1. fines/traffic violations
2. premium rates for luxury hotels and automobiles
3. alcohol
4. entertainment/hospitality

***Note:*** Emergency dry cleaning costs are reimbursable.



**INTERROGATORY RESPONSE - CCC-11**

**CCC-11**

**EXHIBIT REFERENCE:**

**(Ex. 1-1-9)**

**SUBJECT AREA: Business Plan**

Please set out the detailed timeline for the preparation of the 2021-2025 Business Plan. Please describe, in detail, the process that was undertaken to develop the Business Plan. Please provide the Business Plan applicable to the 2016-2020 Application.

**RESPONSE:**

Section 3 of UPDATED Exhibit 1-1-9: Business Plan provides detail on the integrated business planning and corporate performance management framework in place at Hydro Ottawa. As described therein, “[t]his framework links the strategic and business planning, budgeting, performance measurement, management reporting, and employee alignment activities into one continuous business and improvement cycle.”<sup>1</sup> In addition, this section of the 2021-2025 Business Plan explains that “...a key input into the process is a set of formal guidelines from the Chief Financial Officer for the preparation of five-year budgets for Hydro Ottawa’s subsequent distribution rate period.”<sup>2</sup>

A copy of the memorandum from Hydro Ottawa’s Chief Financial Officer that sets forth guidelines for 2020-2025 budgets and priorities is appended to the 2021-2025 Business Plan as Attachment 1-1-9(A): Corporate Memorandum - 2020-2025 Priorities and Budget Guidelines. The 2021-2025 Business Plan was prepared pursuant to the guidance and timelines included in this memorandum.

Table A outlines the timeline under which the utility’s 2021-2025 Business Plan was developed.

<sup>1</sup> UPDATED Exhibit 1-1-9: Business Plan, page 4.

<sup>2</sup> *Ibid*, page 6.

1 **Table A – Timeline of 2021-2025 Business Plan Development**

ACTION	DATE
Launch of Phase I customer engagement activity <sup>3</sup>	January 2019
Issuance of Chief Financial Officer memorandum on 2020-2025 Priorities and Budget Guidelines	January 31, 2019
Completion of first drafts of 2021-2025 Hydro Ottawa divisional budgets and 2021-2025 Distribution System Plan	March 29, 2019
Divisional management review of draft 2021-2025 budgets	April 2019
Completion of second drafts of 2021-2025 Hydro Ottawa divisional budgets and 2021-2025 Distribution System Plan	May 31, 2019
Executive and senior management review of second drafts of 2021-2025 budgets	June 2019
Launch of Phase II customer engagement “workbook” presenting overview of draft business plan	August 2019
Refinement of business plan, based on results of customer engagement	October 2019
Final executive review	November 2019
Board of Directors approval	November 28, 2019

2

3 With respect to the request for the provision of the business plan applicable to Hydro Ottawa’s  
4 2016-2020 application, the utility observes that it was not until October 2016 that the OEB  
5 implemented a requirement for submitting a five-year business plan in conjunction with a  
6 rebasing application. This requirement was established by way of the publication of the OEB’s  
7 *Handbook for Utility Rate Applications*, which mandated the inclusion of a business plan in a  
8 utility’s rate filing and signalled the OEB’s expectations for the general scope of such business  
9 plans. Seeing as Hydro Ottawa submitted its 2016-2020 application in April 2015, and an OEB  
10 Decision and Order was issued in December 2015, the OEB’s requirement for submitting a  
11 business plan as part of a rebasing application was not yet in effect.

12 <sup>3</sup> For additional information on Hydro Ottawa’s customer engagement with respect to this Application, please see  
13 Exhibit 1-2-2: Customer Engagement on the 2021-2025 Application.

**INTERROGATORY RESPONSE - CCC-12**

**CCC-12**

EXHIBIT REFERENCE:

**(Ex. 1-1-9, p. 5)**

SUBJECT AREA: Compensation

Please provide an organizational chart setting out all current employees and positions down to the Manager level. Please list all of the members of the Executive Management Team and their positions. Please provide a list of all members of the holding company and their positions.

---

**RESPONSE:**

For the requested copy of the organizational chart, please see Attachment CCC-12(A): Hydro Ottawa Organizational Chart.

Members of the Executive Management Team and their positions are as listed below:

- President and Chief Executive Officer - Bryce Conrad
- Chief Financial Officer - Geoff Simpson
- Chief Electricity Distribution Officer - Guillaume Paradis
- Chief Electricity Generation Officer - Gregory Clarke
- Chief Energy and Infrastructure Services Officer - Adnan Khokhar
- Chief Human Resources Officer - Lyne Parent-Garvey
- Chief Customer Officer - Julie Lupinacci
- Chief Information and Technology Officer - Mark Fernandes
- General Counsel - Shaun Logue
- Director, Corporate Planning and Governance - Tina Tardioli

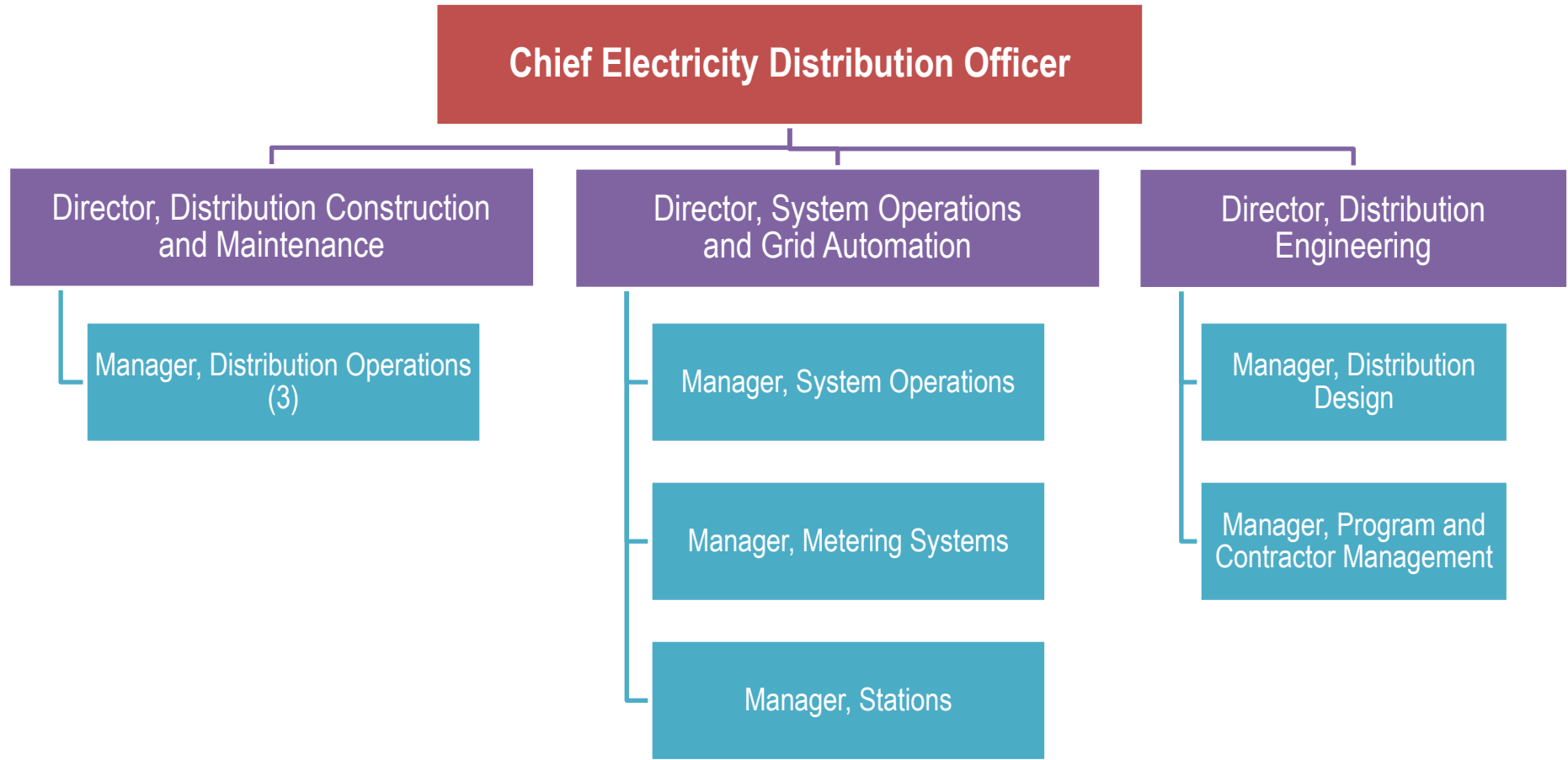
Positions in Hydro Ottawa Holding Inc. ("Holding Company") are as listed in Table A below:

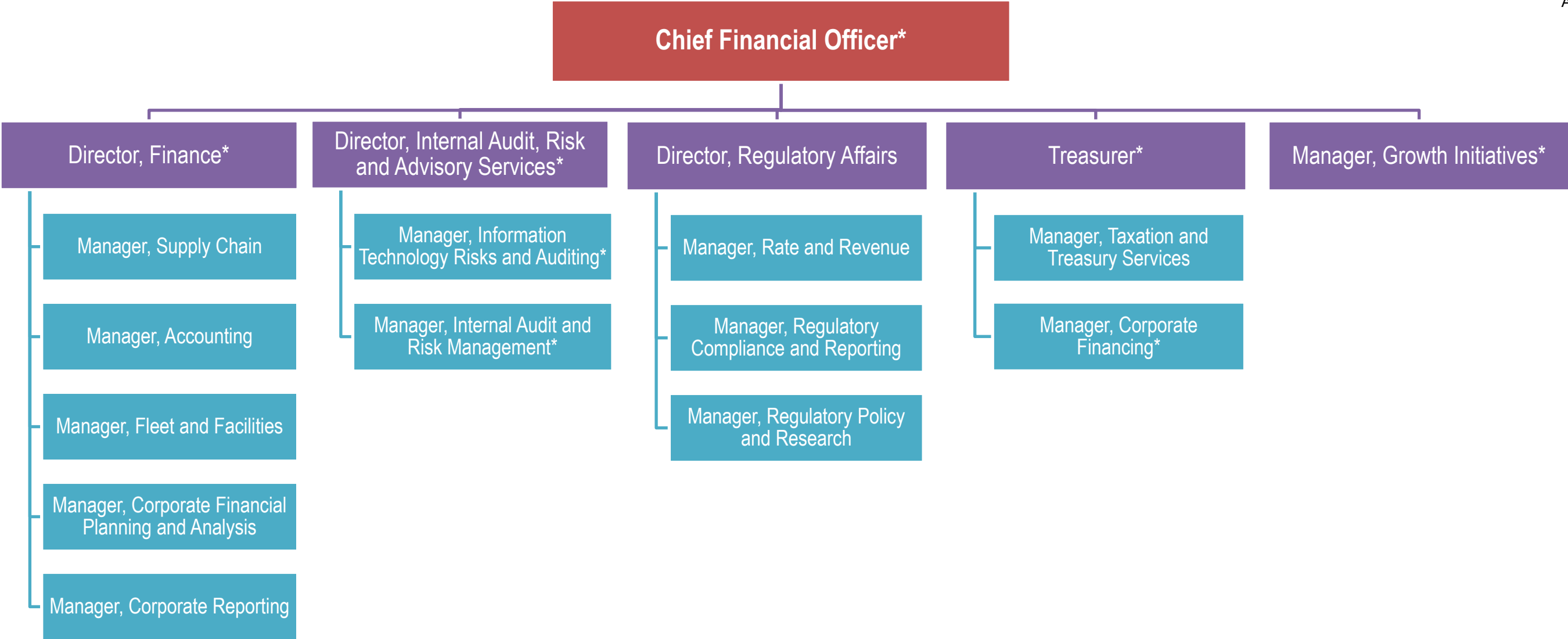
1

**Table A – Positions in the Holding Company**

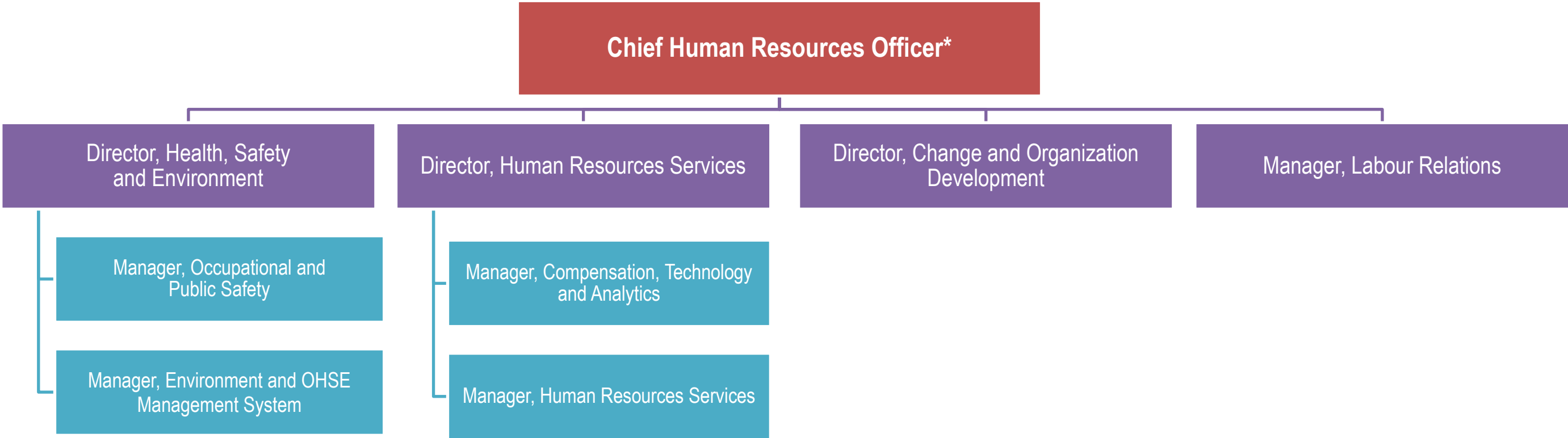
Holding Company Positions
Associate Corporate Secretary and Governance Officer
Chief Customer Officer
Chief Energy and Infrastructure Services Officer
Chief Financial Officer
Chief Human Resources Officer
Chief Information and Technology Officer
Corporate Board and Committee Coordinator
Director, Communications and Public Affairs
Director, Corporate Planning and Governance
Director, Finance
Director, Internal Audit, Risk & Advisory Services
ERP Programmer Analyst, Functional
ERP Programmer Analyst, Technical
Executive Assistant (5)
Finance Officer, Internal Audit and Risk
General Counsel
Manager, Corporate Financing
Manager, Growth Initiatives
Manager, Information Technology Risks and Auditing
Manager, Internal Audit and Risk Management
Manager, Marketing
Manager, Media and Public Affairs
President and Chief Executive Officer
Senior Executive Assistant
Treasurer

2

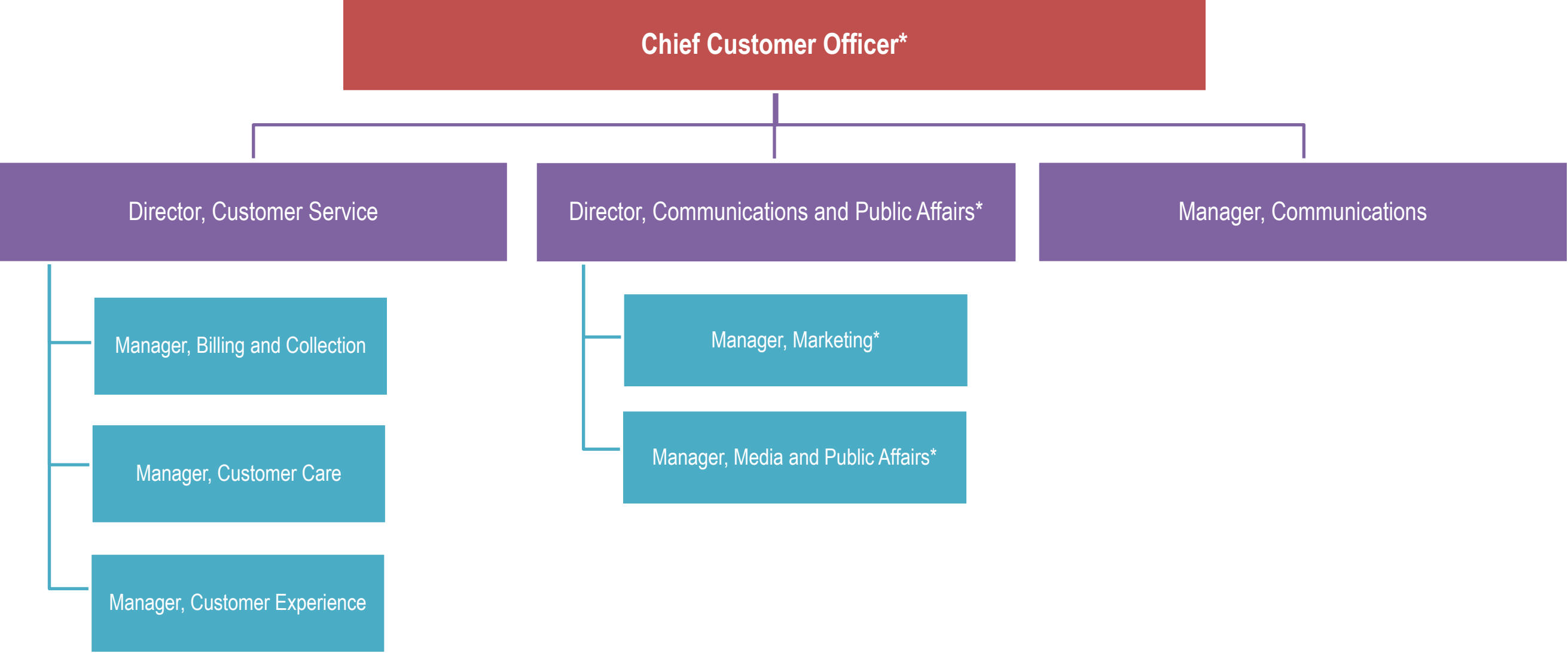




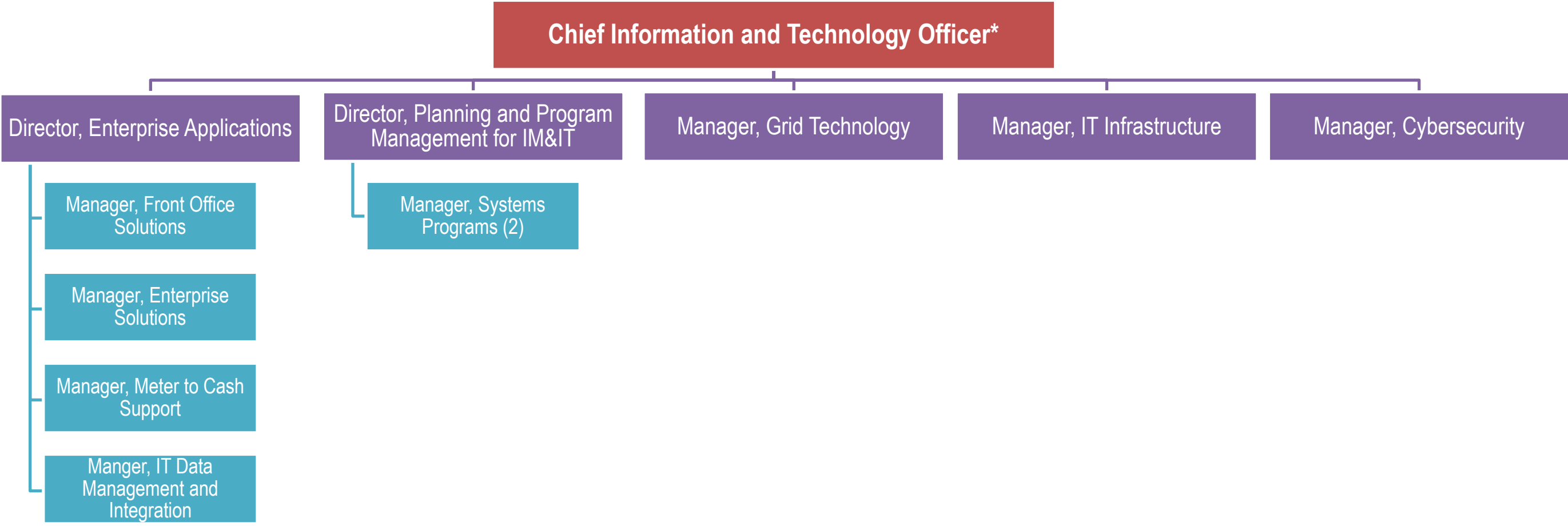
\*Position in the holding Company



\*Position in the holding Company



\*Position in the holding Company



\*Position in the holding Company

**INTERROGATORY RESPONSE - CCC-13**

**CCC-13**

EXHIBIT REFERENCE:

**(Ex. 1-1-9, p. 5)**

SUBJECT AREA: Corporate Governance

Please provide the quarterly reports to the holding company and regulated distribution utility Boards for 2019 and Q1 2020.

---

**RESPONSE:**

A copy of the quarterly reports to the holding company and regulated distribution utility Boards of Directors for Q1-Q3 2019 can be found in Attachment CCC-13(A): Q1-Q3 2019 Board Reports. These reports have been redacted to remove information that is either not relevant to the scope of this proceeding (e.g. performance of affiliate companies) or that is not within the purview of the regulated distribution utility's Board of Directors. The Q4 2019 and Q1 2020 reports are not attached. In light of the COVID-19 pandemic, the year-end Committee and Board meetings originally scheduled for March and April 2020 have been rescheduled to May and June 2020. As a result, the Boards will not be receiving the Q4 2019 and Q1 2020 quarterly reports until June 16, 2020.



## Board / Committee Report

**To:** Hydro Ottawa Holding Inc. Board of Directors

**Date:** 18 June 2019

**Submitted by:**

A handwritten signature in red ink, consisting of a large, stylized 'B' followed by a horizontal line and a small upward stroke.

---

Bryce Conrad  
President and Chief Executive Officer

**Agenda Item:** 9 - President and Chief Executive Officer Quarterly Report Year to Date  
as at March 31, 2019

**Report Recommendation(s):**

That the Board of Directors of Hydro Ottawa Holding Inc. receive the quarterly report of the President and Chief Executive Officer year to date as at March 31, 2019.

**EXECUTIVE SUMMARY:**

NA

**BACKGROUND:**

1. Further to their respective charter responsibilities, the Hydro Ottawa Holding Inc. (HOHI) Board must regularly monitor HOHI's implementation of the enterprise Strategic Plan and HOHI's progress toward achieving that plan, and the Hydro Ottawa Limited (HOL) Board must regularly monitor HOL's implementation of its Business Plan (that is aligned to the enterprise Strategic Plan established by HOHI) and HOL's progress toward achieving it.
2. The quarterly President and Chief Executive Officer (CEO) report of progress against the annual Board-approved Corporate Performance Scorecard assists the Boards in fulfilling these charter responsibilities.
3. The quarterly President and CEO report and the Corporate Performance Scorecard are components of Hydro Ottawa's integrated planning and performance management framework that was put in place in April 2007 to strengthen alignment between our strategy and guiding principles to individual contribution and performance. This was in response to a need that had been identified in the 2005-2006 Governance Work Plan approved by the HOHI Board in August 2005 to improve Hydro Ottawa's governance and business practices.
4. The integrated planning and performance management framework provides for the following:
  - a. An enterprise strategic plan (our Strategic Direction) approved by the HOHI Board that sets our course for a five-year period;
  - b. Board-approved annual business plans at the both the HOHI and HOL levels comprised of a Corporate Performance Scorecard (priorities and measures and targets) and Budget that operationalize the enterprise strategic plan in a given year, and that cascade to employees through Individual Contribution Plans and performance appraisal system);
  - c. Regular monitoring and reporting of performance and progress against annual plans and budget including
    - i. Monthly reviews by the Executive Management Team of financials, status of priorities and critical projects, and performance measures and targets as established for each key area of focus in the annual Corporate Performance Scorecard,
    - ii. **A quarterly President and CEO Report to the two Boards of progress against the Corporate Performance Scorecard, including ERM reporting,**
    - iii. Quarterly Financial Reports and Monthly Updates to the Shareholder, and
    - iv. An Annual Report to the Shareholder; and
  - d. An annual review of the critical issues and opportunities facing the company by the Executive Management Team and subsequently by the Boards of Directors

to determine whether an adjustment to our five-year course is required as part of the development of the annual plan (Corporate Performance Scorecard and budget & financial outlook) for the next year.

**DISCUSSION:**

5. The presentation attached at Annex "A" is the President and CEO quarterly report to the Boards year to date as at March 31, 2019. It includes the following information:
  - a. Quarter at a Glance – Summary Corporate Priorities;
  - b. Enterprise Risk Management (ERM) Assessment;
  - c. Q1 2019 Results Highlights;
  - d. Progress Against Plan – Corporate Performance Scorecard (Qualitative Corporate Priorities and Quantitative Performance Measures and Targets);  
and
  - e. Compliance, Legal Issues and Provincial Programs.

**SUPPORTING DOCUMENTATION:**

Annex "A" - President & CEO Report Year to Date as at March 31, 2019

Annex "A"

The background of the slide features a collage of images related to Hydro Ottawa's operations and workforce. On the left, there are four overlapping triangular photo cutouts: the top one shows a female worker in an orange safety vest and hard hat; the middle one shows two male workers in safety vests; the bottom-left one shows three female employees in blue uniforms; and the bottom-right one shows a male employee at a computer. The right side of the slide features a large, wide-angle photograph of a dam with water cascading over its spillways. The Hydro Ottawa logo, consisting of a stylized blue and orange 'H' followed by the text 'HydroOttawa', is positioned in the upper right quadrant. Below the logo, the tagline 'A leading partner in a smart energy future' is written in a light grey font. The bottom right section of the slide has a solid blue background with white text.

**HydroOttawa**

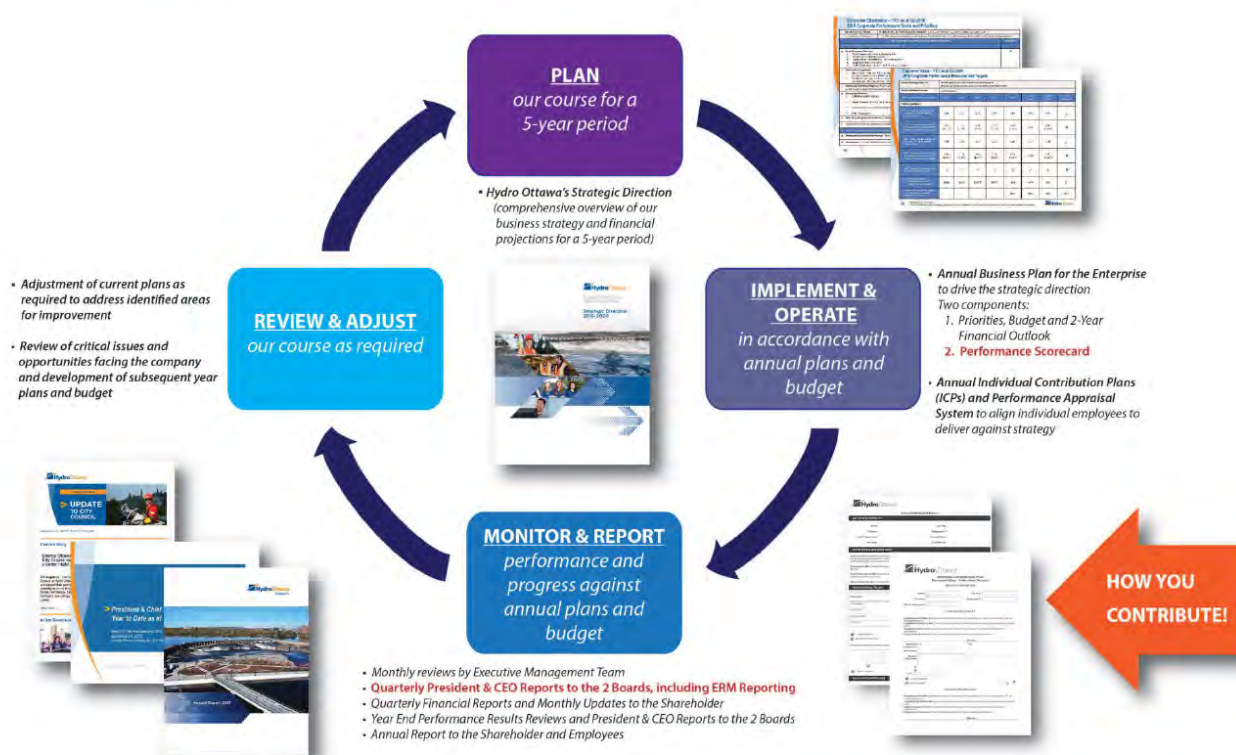
A leading partner in a  
smart energy future

**President & CEO Report  
Year to Date as at March 31, 2019**

Hydro Ottawa Limited and Hydro Ottawa  
Holding Inc. Boards of Directors

June 18, 2019

## Context – Our Integrated Planning & Performance Management Framework



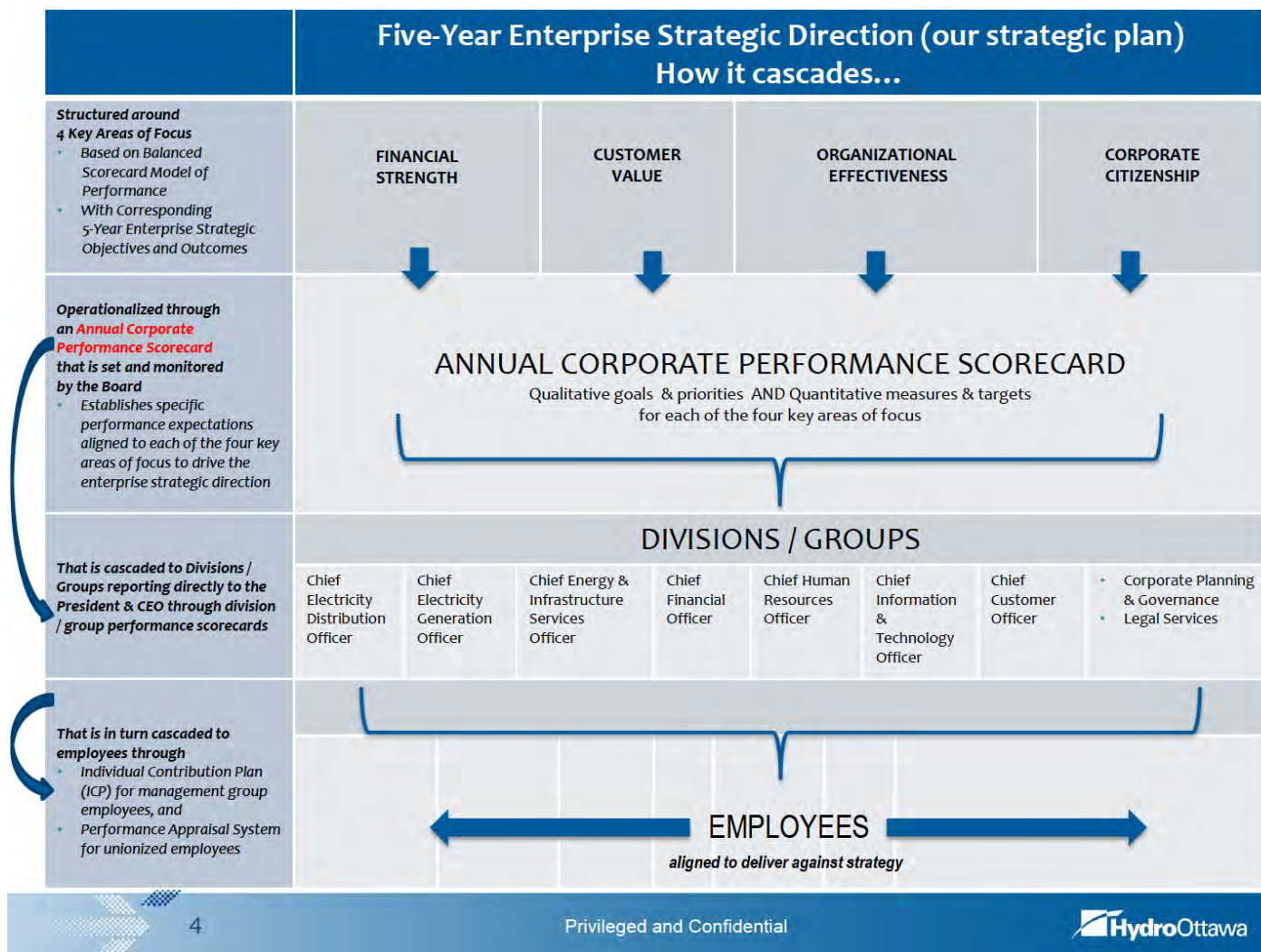
## Context – 2019 Corporate Performance Scorecard...

- For 2019, the Board approved **one corporate performance scorecard for the enterprise**
- The scorecard established qualitative performance goals and priorities and quantitative measures and targets in each of our four key areas of focus to support the advancement of the Strategic Direction in 2019

- Customer Value
- Financial Strength
- Organizational Effectiveness
- Corporate Citizenship



- The scorecard also included separate quantitative Financial Strength performance targets for the HOL entity
- Performance priorities for executive and management staff for 2019 were cascaded from the corporate performance scorecard (*see next slide*)
- Results highlights and progress against the scorecard (including ERM assessment) are reported quarterly to the HOHI and HOL Boards by the President & CEO





## Overview of Report

1. Quarter at a Glance – Summary Corporate Priorities
2. Enterprise Risk Management (ERM) Assessment
3. Q1 2019 Results Highlights
4. Compliance, Legal Issues and Provincial Programs
5. Progress Against Plan – Corporate Performance Scorecard
  - Qualitative Corporate Priorities
  - Quantitative Performance Measures and Targets



## Section 1 – Summary Corporate Priorities









## 2019 Performance Goals Summary

5-Year Enterprise Strategic Objectives and Outcomes (2016-2020)		2019 Corporate Performance Goals
Financial Strength	<p><b>Enterprise Strategic Objective:</b>            We will create sustainable growth in our business and our earnings  <i>By improving productivity and pursuing business growth opportunities that leverage our strengths – our core capabilities, our assets and our people</i></p> <p><b>Enterprise Strategic Outcome:</b>            Growth in shareholder value</p>	<ul style="list-style-type: none"> <li>• Grow revenues from new sources</li> <li>• Enhance / protect revenues from existing business lines</li> </ul>
Customer Value	<p><b>Enterprise Strategic Objective:</b>            We will deliver value across the entire customer experience  <i>By providing reliable, responsive and innovative services at competitive rates</i></p> <p><b>Enterprise Strategic Outcome:</b>            Customer loyalty</p>	<ul style="list-style-type: none"> <li>• Assist customers in managing their energy consumption and electricity costs</li> <li>• Deliver on customer expectations for service quality and responsiveness</li> <li>• Maintain overall distribution system reliability</li> </ul>
Organizational Effectiveness	<p><b>Enterprise Strategic Objective:</b>            We will achieve performance excellence  <i>By cultivating a culture of innovation and continuous improvement</i></p> <p><b>Enterprise Strategic Outcomes:</b>            Efficient and effective operations            Safe and healthy work environment            Engaged, aligned and prepared workforce</p>	<ul style="list-style-type: none"> <li>• Continue to enhance operational performance and productivity</li> <li>• Maintain leading health and safety record</li> <li>• Enhance organizational and employee capability</li> </ul>
Corporate Citizenship	<p><b>Enterprise Strategic Objective:</b>            We will contribute to the well being of the community  <i>By acting at all times as a responsible and engaged corporate citizen</i></p> <p><b>Enterprise Strategic Outcomes:</b>            Leading governance and business practices            Engaged stakeholders            Safe, secure and environmentally responsible services            Positive community impact</p>	<ul style="list-style-type: none"> <li>• Enhance our brand image in the community and the industry</li> <li>• Continue to improve our environmental performance and reduce our impact on the environment</li> </ul>

Financial Strength – Summary Key Corporate Priorities <i>Grow revenues from new sources and enhance / protect revenues from existing business lines</i>		Assessment ● ▲ ✕
1.	[REDACTED]	■
■	[REDACTED]	■
■	[REDACTED]	■
■	[REDACTED]	■
5.	<u>2021 – 2025 Electricity Custom Incentive Rate Application</u> – finalize planning, preparations, and submission by end of 2019	●
6.	[REDACTED]	■
7.	Maximize CDM GWh results to achieve 2020 financial incentives	✕
8.	[REDACTED]	■



Legend: ● Tracking to plan ▲ Tracking behind plan ✕ Action required

<b>Customer Value – Summary Key Corporate Priorities</b> <i>Assist customers in managing their energy consumption and electricity costs; deliver on customer expectations for service quality and responsiveness; and maintain overall system reliability</i>		<b>Assessment</b> 
1.	Continue to deliver a range of CDM programs that are customer-centric, cost effective and generate strong GWh results, including a. Residential Programs including Hydro Ottawa's app b. Commercial Programs including Small Business Lighting and building retrofit	 
2.	Maintain or enhance our best in class reliability metrics	
3.	Continue implementation of Customer Experience Roadmap key deliverables including using data to drive decisions impacting customers	
4.	Actively pursue and participate in energy innovation projects	
5.	Smart Grid – continue implementation of the foundational grid transformation and modernization projects including [REDACTED] and further leverage new SCADA system	
6.	Continue our improvements in maintenance and capital execution – emphasis on workforce scheduling and contractor management; complete all budgeted programs / plans on time and within budget	

Legend: ● Tracking to plan    ▲ Tracking behind plan    X Action required

Organizational Effectiveness – Summary Key Corporate Priorities <i>Continue to enhance operational performance and productivity; maintain leading health and safety record; and enhance organizational and employee capability</i>		Assessment ● ▲ ✖
1.	[REDACTED]	
2.	[REDACTED]	
3.	[REDACTED]	
4.	Facilities Renewal Program – complete the design/build of the administration building and the east and south operations centres, operational integration and migration, change management and employee engagement, regulatory case preparation and property disposition	●
5.	Union Management Relations – manage outcome of application for certification by SEP for representation at HOL; [REDACTED]	●

Legend: ● Tracking to plan ▲ Tracking behind plan ✖ Action required

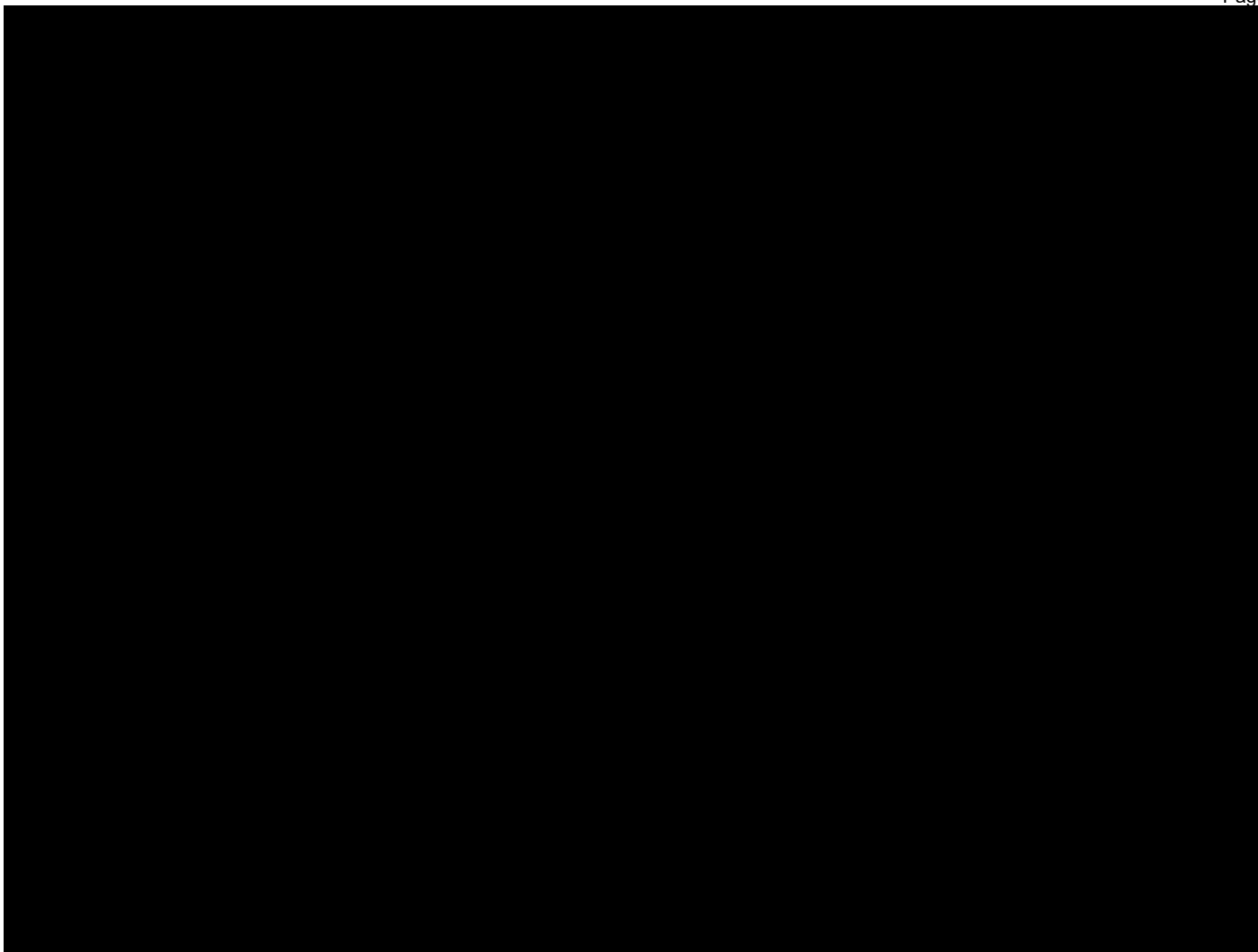


Corporate Citizenship – Summary Key Corporate Priorities <i>Enhance our brand image in the community and the industry; improve our environmental performance and reduce our impact on the environment</i>		Assessment ● ▲ ✕
1.	Leverage new brands to support revenue diversification and business growth	●
2.		
3.		
4.		
5.		
6.		



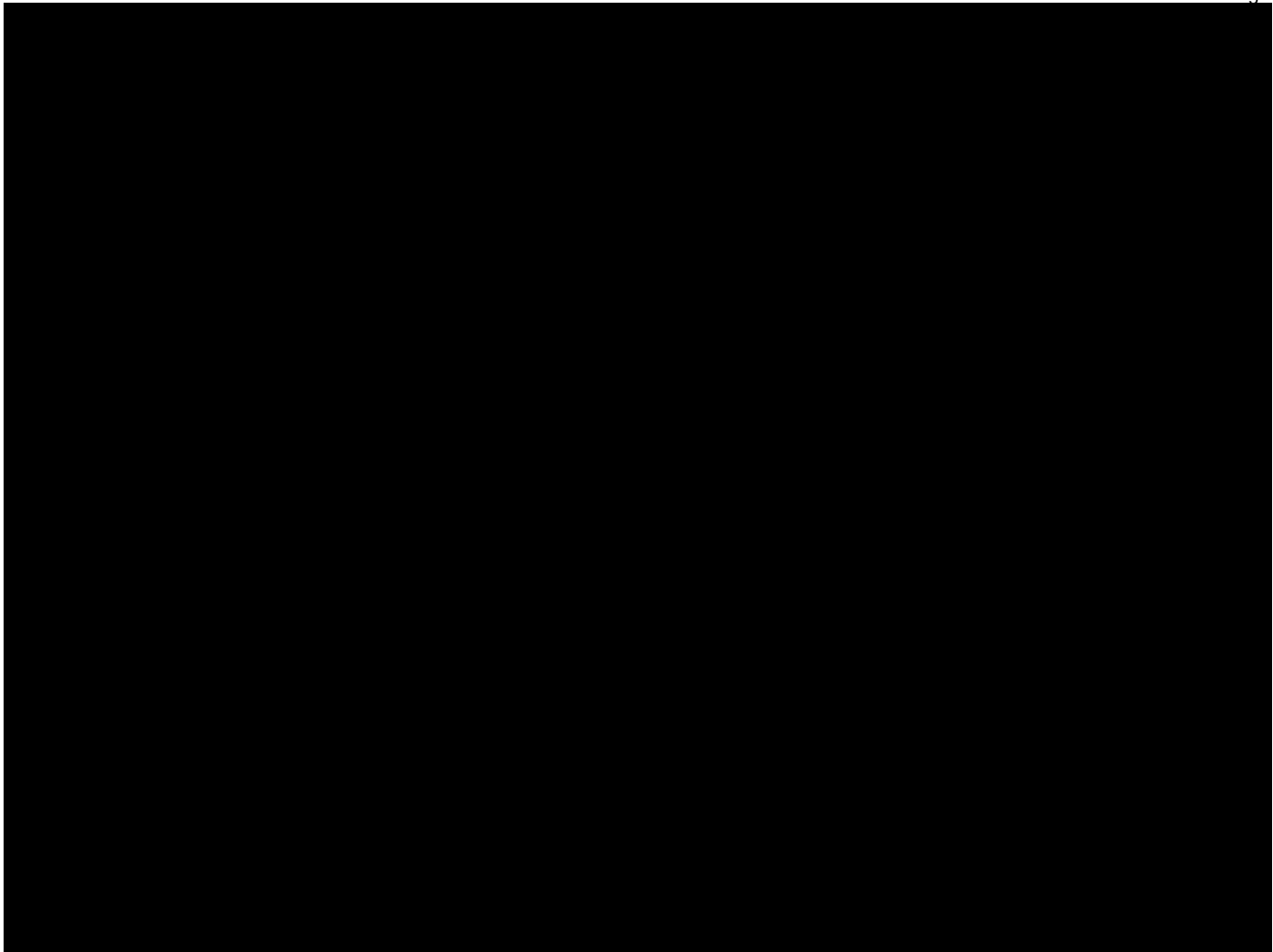
A photograph showing a person's hands typing on a laptop keyboard. The image is overlaid with a semi-transparent blue rectangle. Inside this rectangle, the text 'Section 2 – Enterprise Risk Management (ERM) Assessment' is written in white. Below the text, there are two large, stylized arrows pointing to the right, composed of a grid of dots. The top arrow is white, and the bottom arrow is dark blue.

## Section 2 – Enterprise Risk Management (ERM) Assessment

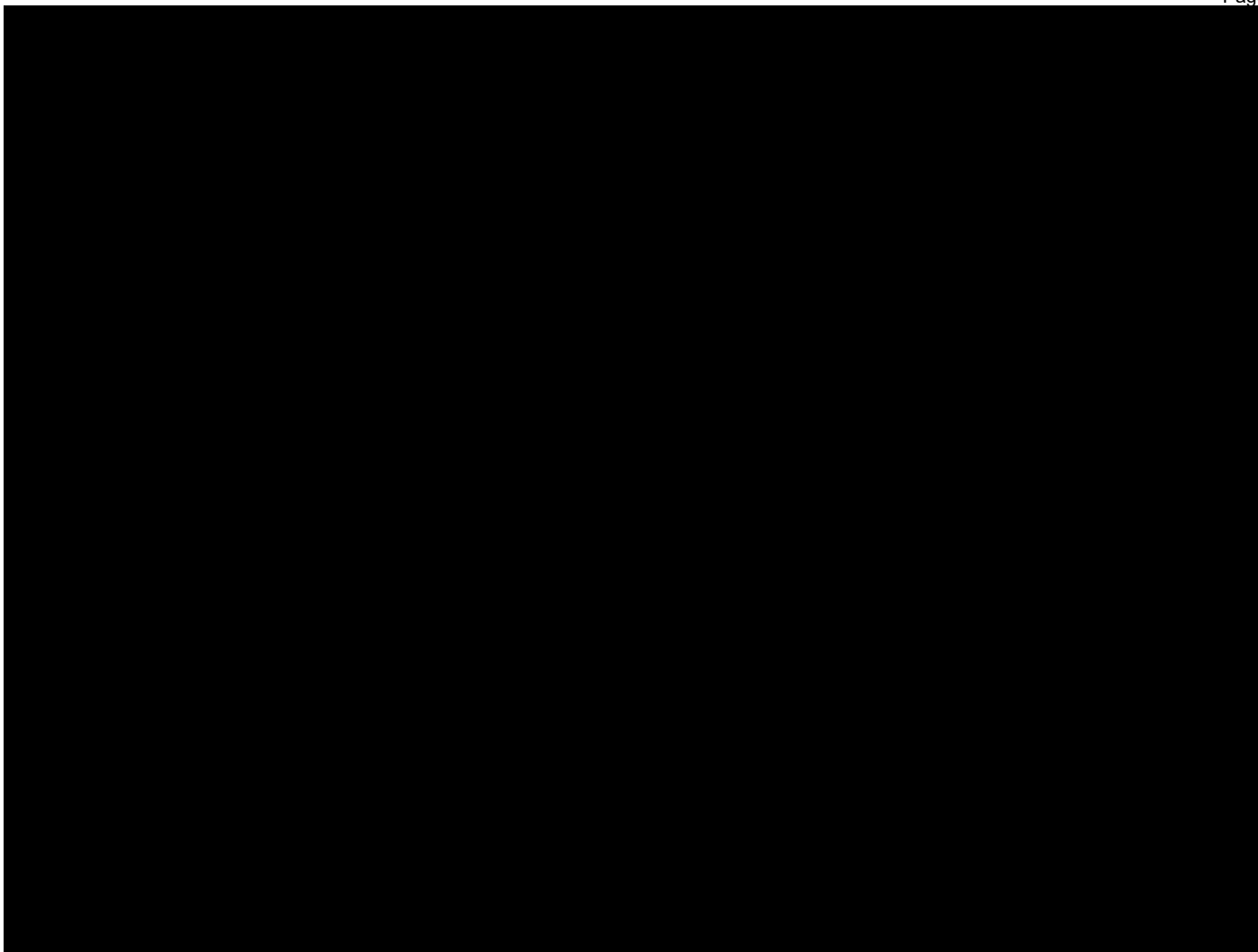


HYDRO OTTAWA LIMITED  
2019 - FIRST QUARTER - ENTERPRISE RISK MANAGEMENT OUTLOOK

FOCUS AREA / Risks	Q1 - 2019	Outlook for 2019	Long Term Outlook (2-5 years)	Watch Areas
<b>FINANCIAL STRENGTH</b>				
Stagnant or Declining Revenue	●	●	▲	The Ministry of Energy announced that hydro rate increases will be held to inflation. Rate expectations for the 2021-2025 rate cycle need to be considered in this light. Ongoing uncertainty about the provincial government's policy direction may warrant a cautious medium-term outlook.
Declining Profitability	●	▲	▲	The Province's decision to centralize CDM programs at the IESO may have some impact on 2019 profitability if funding for winding-down is not in keeping with expectations. The medium-term outlook is cautious as there is uncertainty about the policy / regulatory measures the Ontario government will enforce in reducing electricity bills by 12%.
Declining Financial Strength	●	▲	▲	Debt levels are expected to reach 66% of capital by the end of 2019, stemming from capital commitments in the 2016-2020 rate application. A return to the regulated, deemed capital structure (i.e. 60/40) may need to be incorporated into capital budgets for the 2021-25 rate cycle.
Unexpected Financial Loss	●	●	●	
<b>CUSTOMER VALUE</b>				
Declining Service Delivery	●	●	●	
Declining Customer Loyalty	●	▲	▲	The Province's March 2019 decision to centralize CDM programs at the IESO will adversely affect Hydro Ottawa's conservation service offerings.
Declining Customer Satisfaction	●	●	▲	New regulations for the mandatory reporting of privacy breaches under PIPEDA came into effect in Q4. More complexity likely in the secure management of customer information, especially if Canada adopts elements of GDPR.
<b>ORGANIZATIONAL EFFECTIVENESS</b>				
Declining Operational Effectiveness	●	●	●	
Loss of Operational Capacity	●	●	▲	Proposed OEB action may require adjustments to Hydro Ottawa's corporate governance, including modifications to the composition of the HOL Board. Additional reporting requirements are pending as well.
Declining Employee Morale, Motivation	▲	▲	●	Legal proceedings continue on the Society of Energy Professionals' move to represent HOL's supervisors and professionals.
Unsafe / Unhealthy Business Work Environment	●	●	●	
<b>CORPORATE CITIZENSHIP</b>				
Loss of Credibility within the Community and Industry	●	●	▲	The Province's move to make customer metering data available to 3rd parties could trigger a backlash against utilities, including concerns about privacy and security.
Erosion of Shareholder Value	●	●	●	



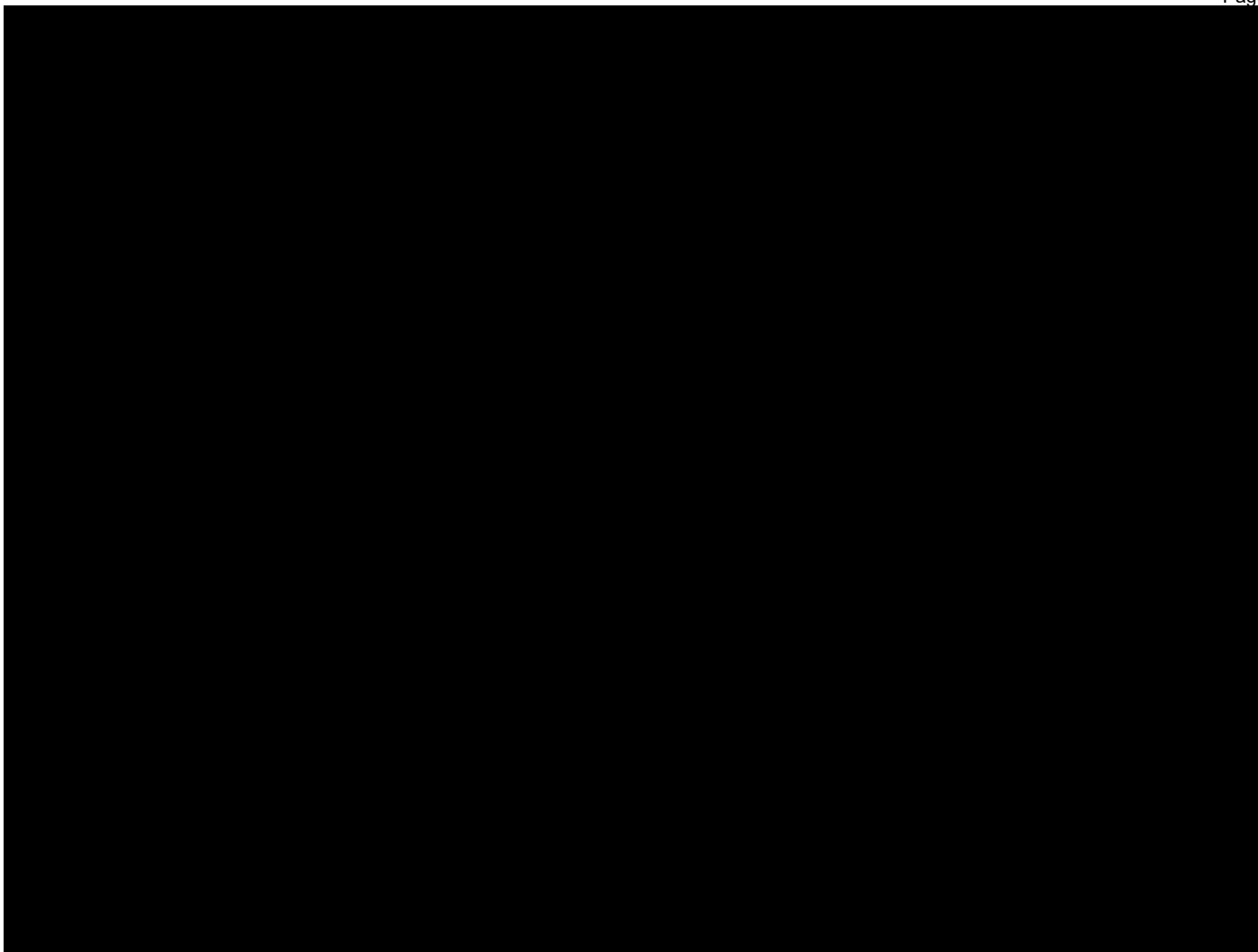


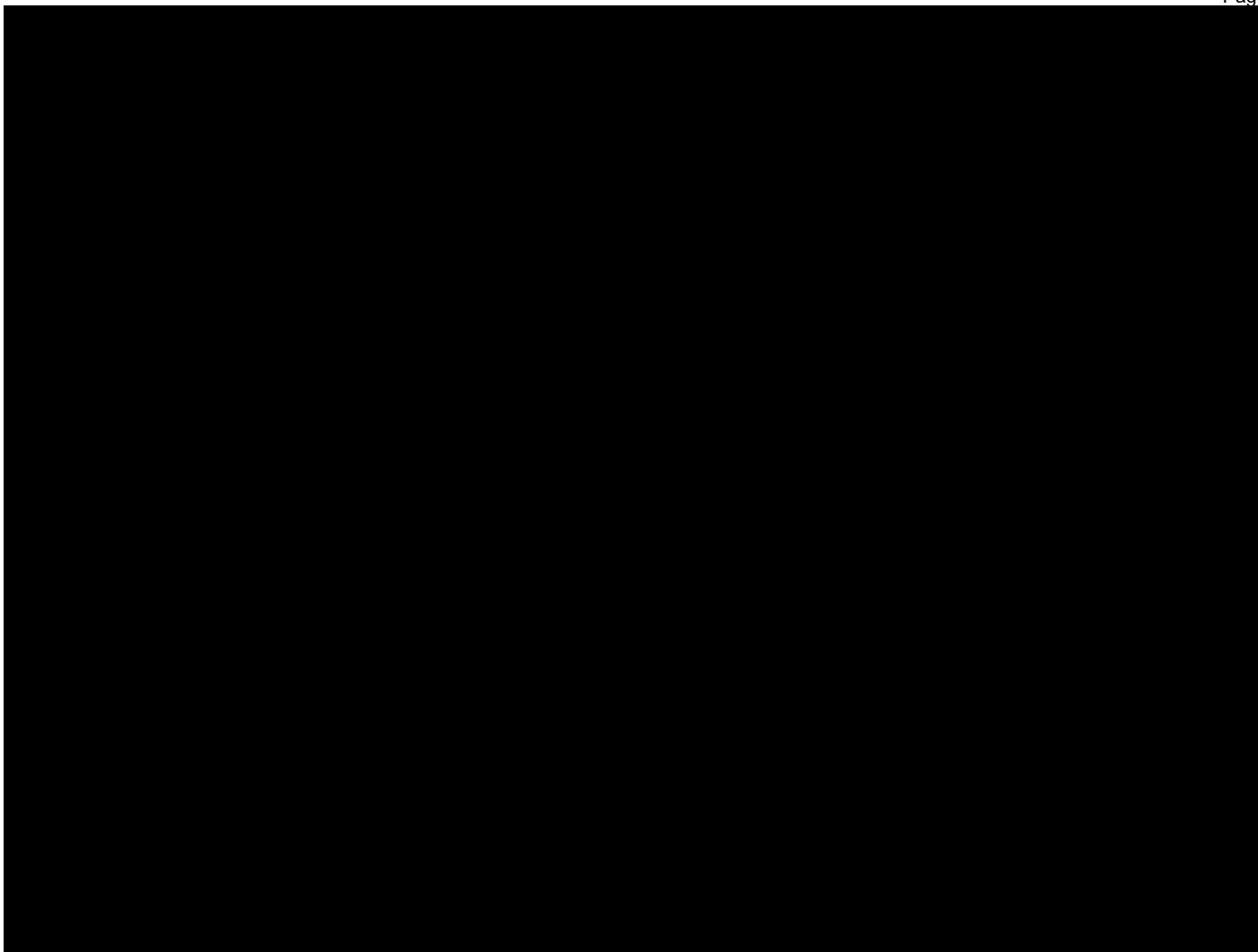


## Q1-2019 HOL Financial Results were also ahead of target...

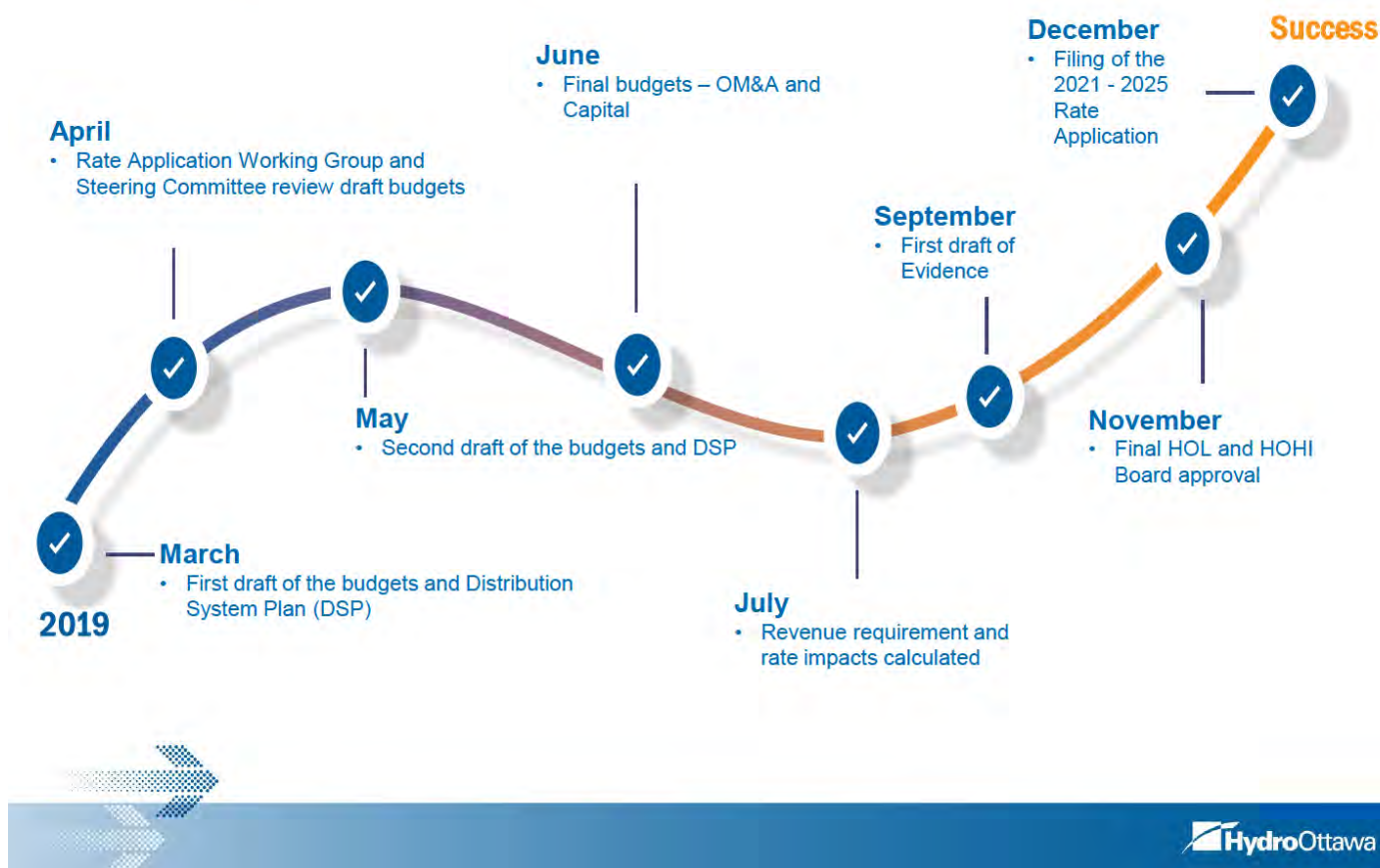
- Net income of \$10M exceeded budget by \$1.1M or 12%
  - Revenues of \$51.5M below budget of \$52M largely explained by lower distribution revenue
  - Expenses of \$23.2M below budget by \$1.3M or 5%
  - Resulting EBITDA exceeded budget by \$0.7M or 3%
- Net capital investments of \$26.8M exceeded budget by \$1.5M
  - Distribution System Renewal and Service exceeded budget by \$1.1M
- Net cash inflows from operating activities of \$26.1M below cash outflows from acquisition of capital assets of \$38.4M by \$12.3M







## Preparations for the 2021-2025 Custom Incentive Rate Application continued...



## Q1 customer satisfaction results trended upward, slightly below target, and reliability remained stable with a positive outlook to year end....

- **SATISFACTION**

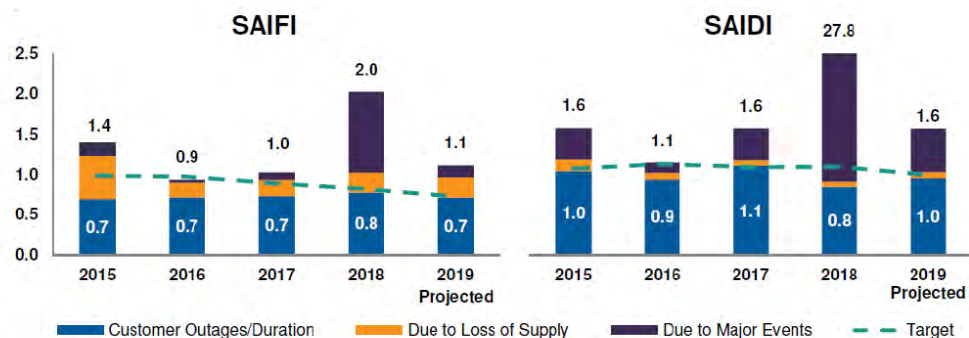
- Call center customer satisfaction was 87% YTD 2019 (target is 90%)
- First call resolution was 88% YTD 2019 (target 85%)
- Brand sentiment (media coverage) was 100% YTD 2019 (target 97%)

- **VALUE**

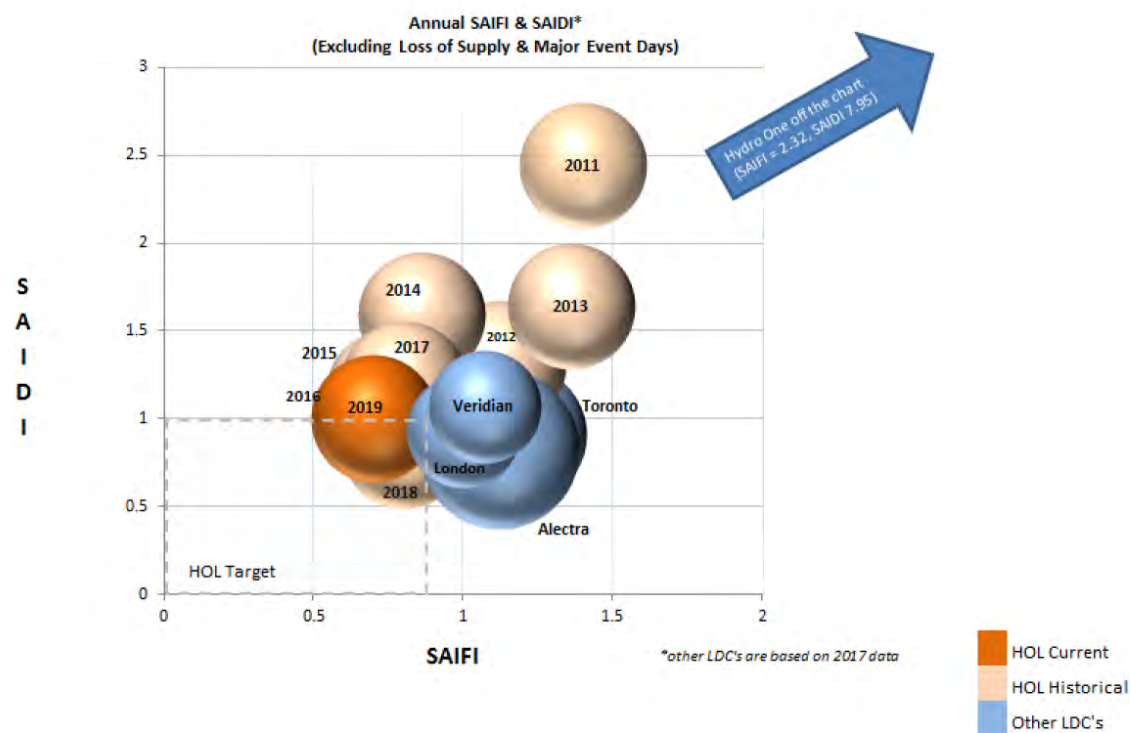
- My Account registrations increased by 3%; 189,127 (43%) accounts
- Online Billing registration increased by 3%; 155,177 (53%) accounts
- Autopay registrations increased by 3%; 64,707 (20%) accounts

- **RELIABILITY**

- In Q1, SAIFI performance was in line with previous year results and SAIDI performance was better than previous year results. The projected year-end SAIFI and SAIDI are within range of meeting the 5-year average of 0.73 and 0.99
- The projected Loss of Supply and Major Events are based on the average of the last 5 years. We typically experience 2 Major Events per year. There were no Major Events in Q1



## We continued to compare favourably...



## We assisted customers in managing their energy consumption and electricity costs...

### Energy Conservation Programs

- Significant changes released by the Provincial Government surrounding CDM programs in March 2019
- 288 Retrofit projects completed in Q1 (representing 12.2 GWh) – highest completion rate since 2016
- 55 Commercial Refrigeration projects completed in Q1 (representing 281,008 kWh)
- 127 Events showcased – 8% increase from Q1 2018
- 25,825 participants in Social Benchmarking programs (Hydro Ottawa App)



### Electricity Financial Support Programs

- Continued promotion of financial assistance programs such as LEAP, OESP, EMPP and Affordability Trust
- Ontario Electricity Support Program (OESP) – 24,884 recipients (~ 8% increase from last quarter)
- Equal Monthly Payment (EMPP) – 19,599 accounts registered

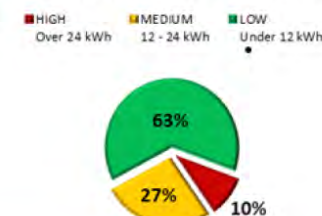


### Energy Innovation Projects

- EV Charger Residential Pilot Program – 32 chargers installed
- Participated with Algonquin College in Focus Group to evaluate EV Owner opinions regarding the use of EVs and public charging stations
- Collaborating on MiGen Transactive Grid (formerly 'The GREAT-DR') a platform to support energy transactions between customers



### CONSUMPTION PER CHARGING SESSION



## We took steps to improve service quality and responsiveness...

### Continued evolution through our Customer Experience Roadmap Initiatives

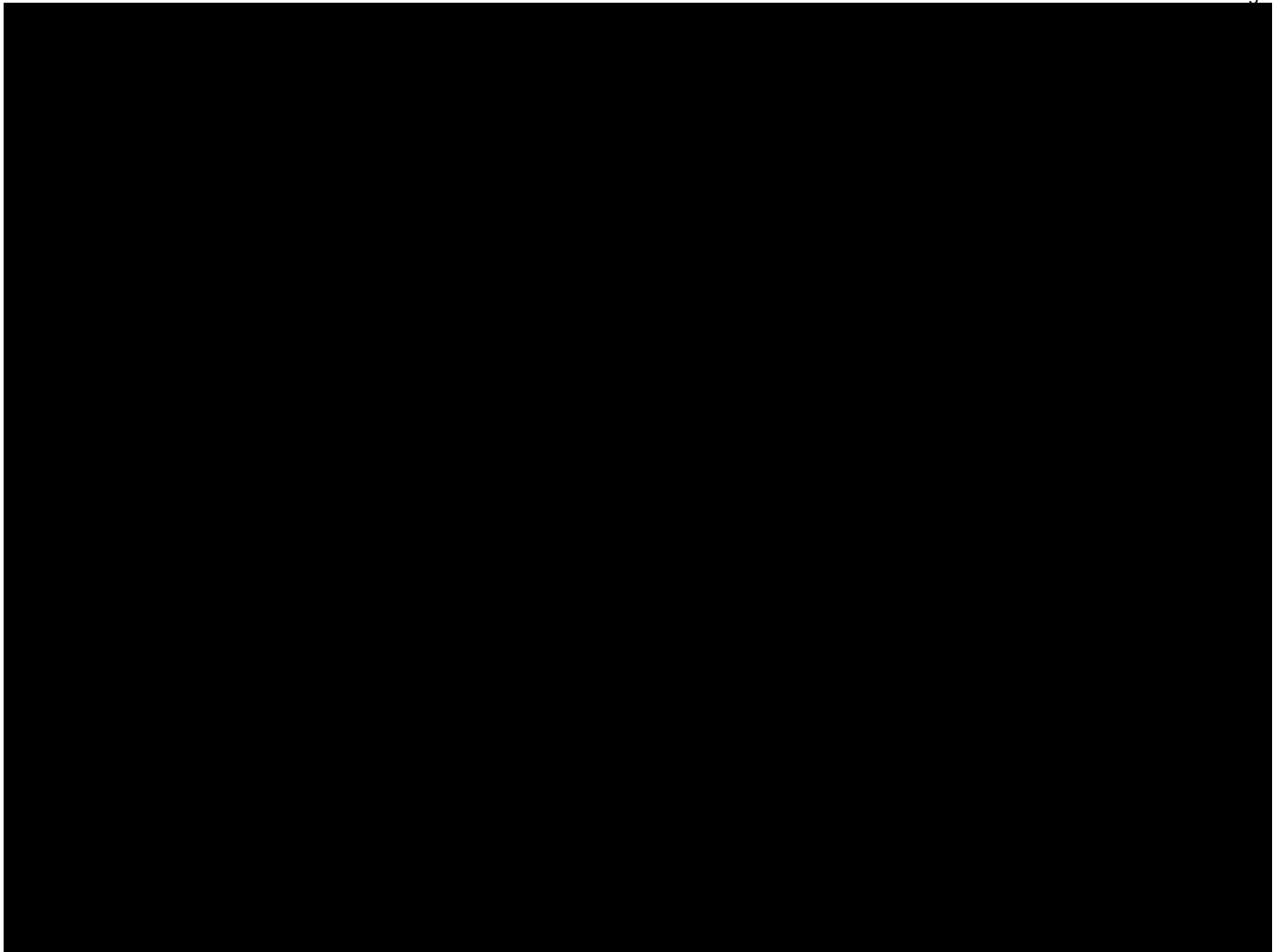


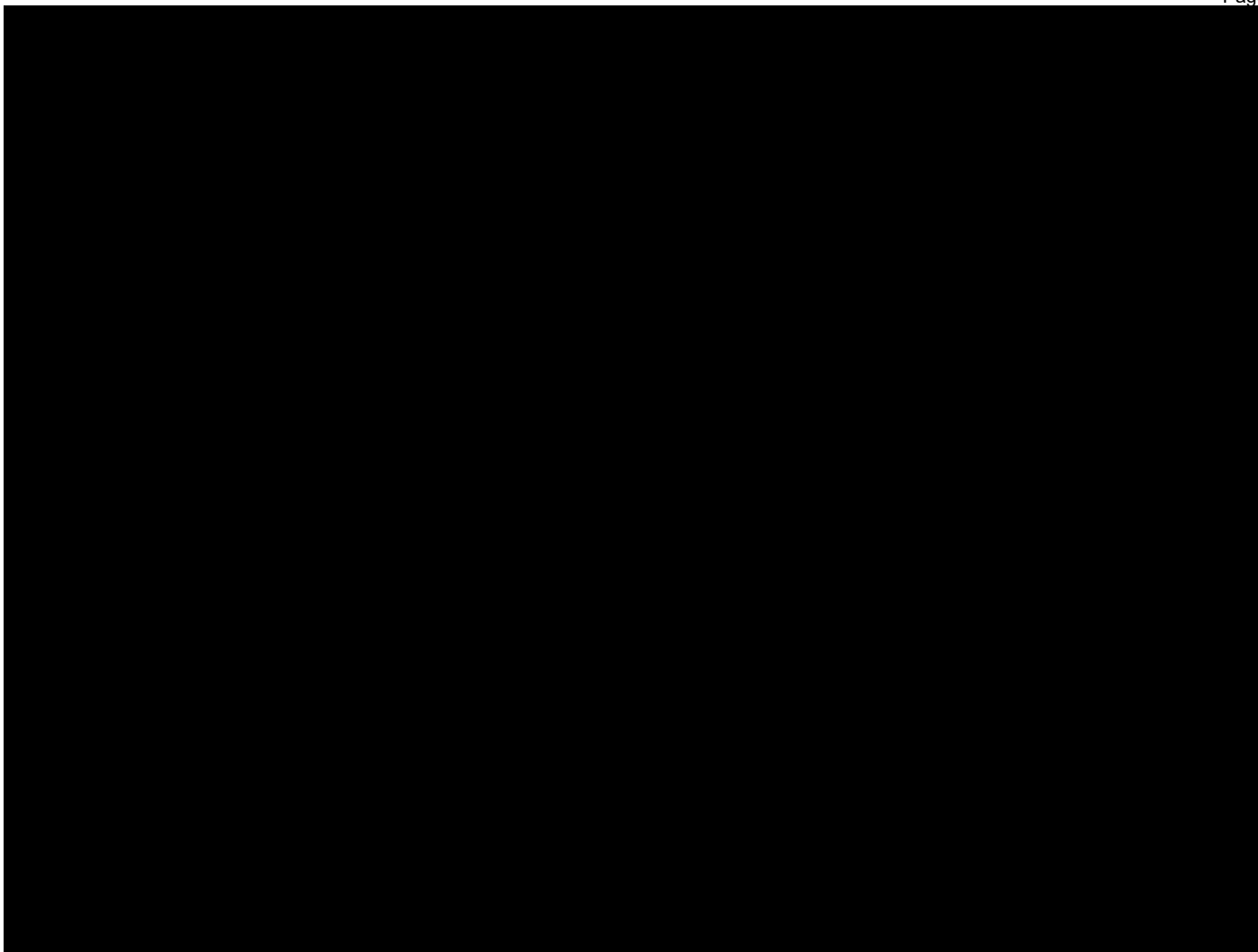
## And we invested in our distribution system...

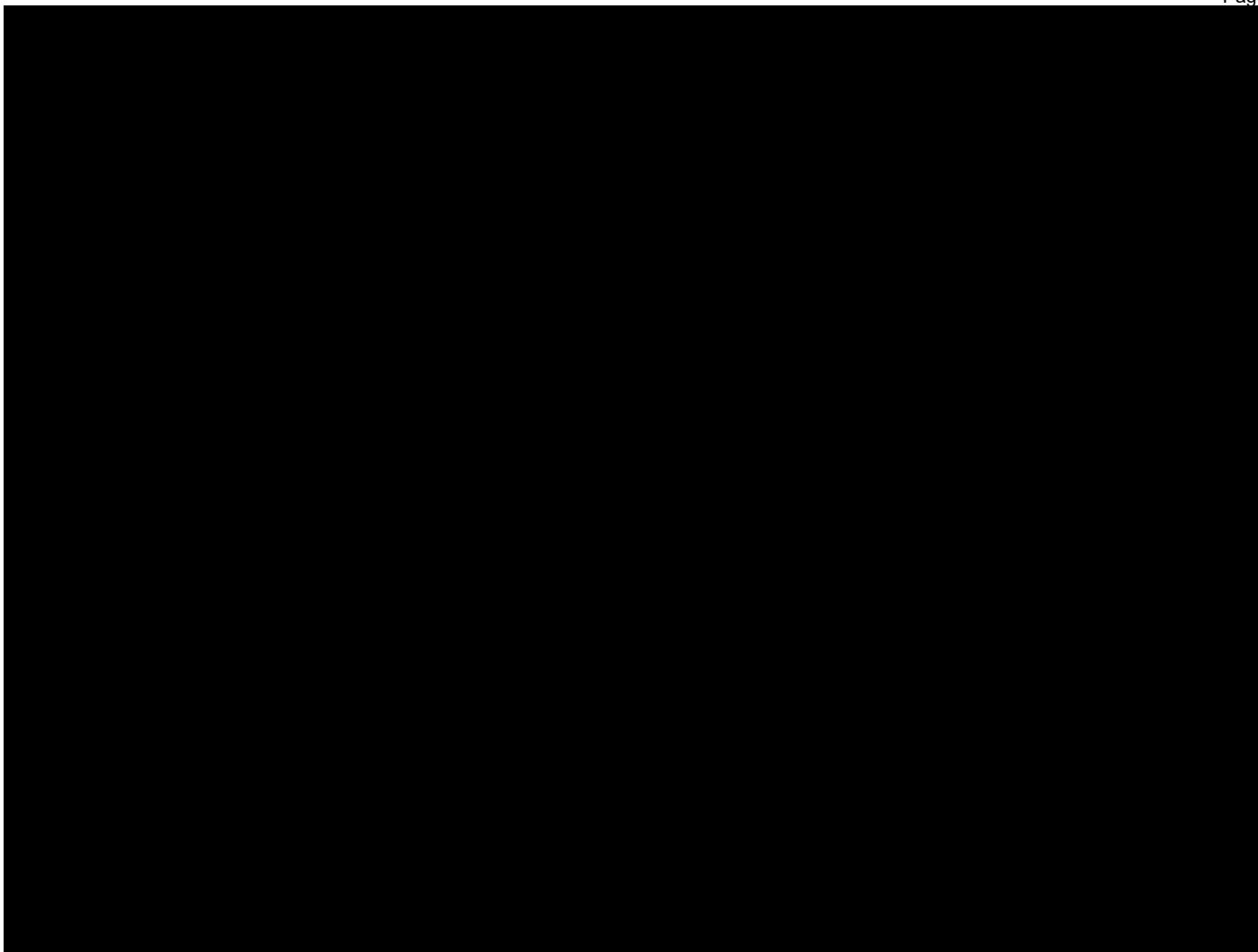


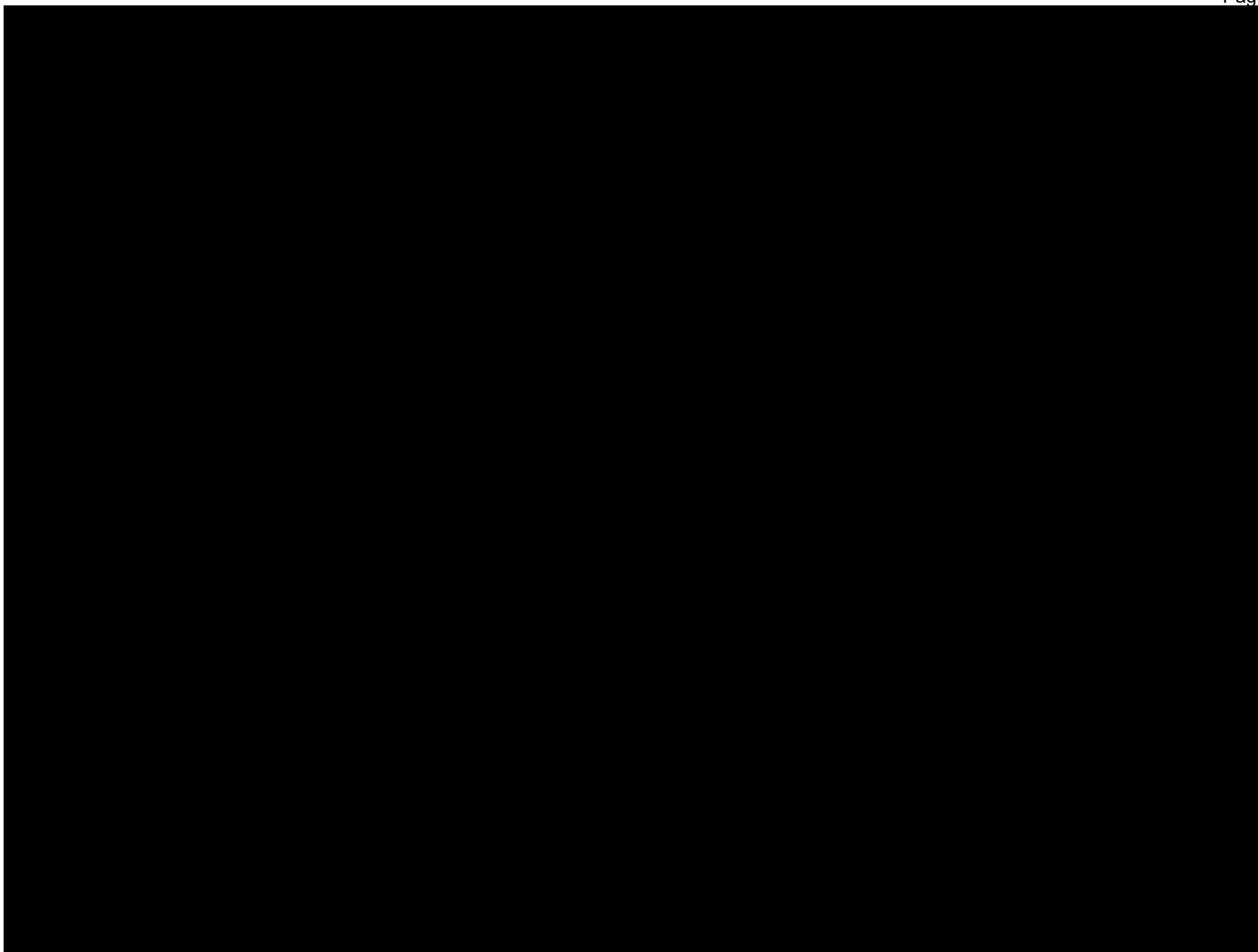
### OVERALL DISTRIBUTION SYSTEM RELIABILITY

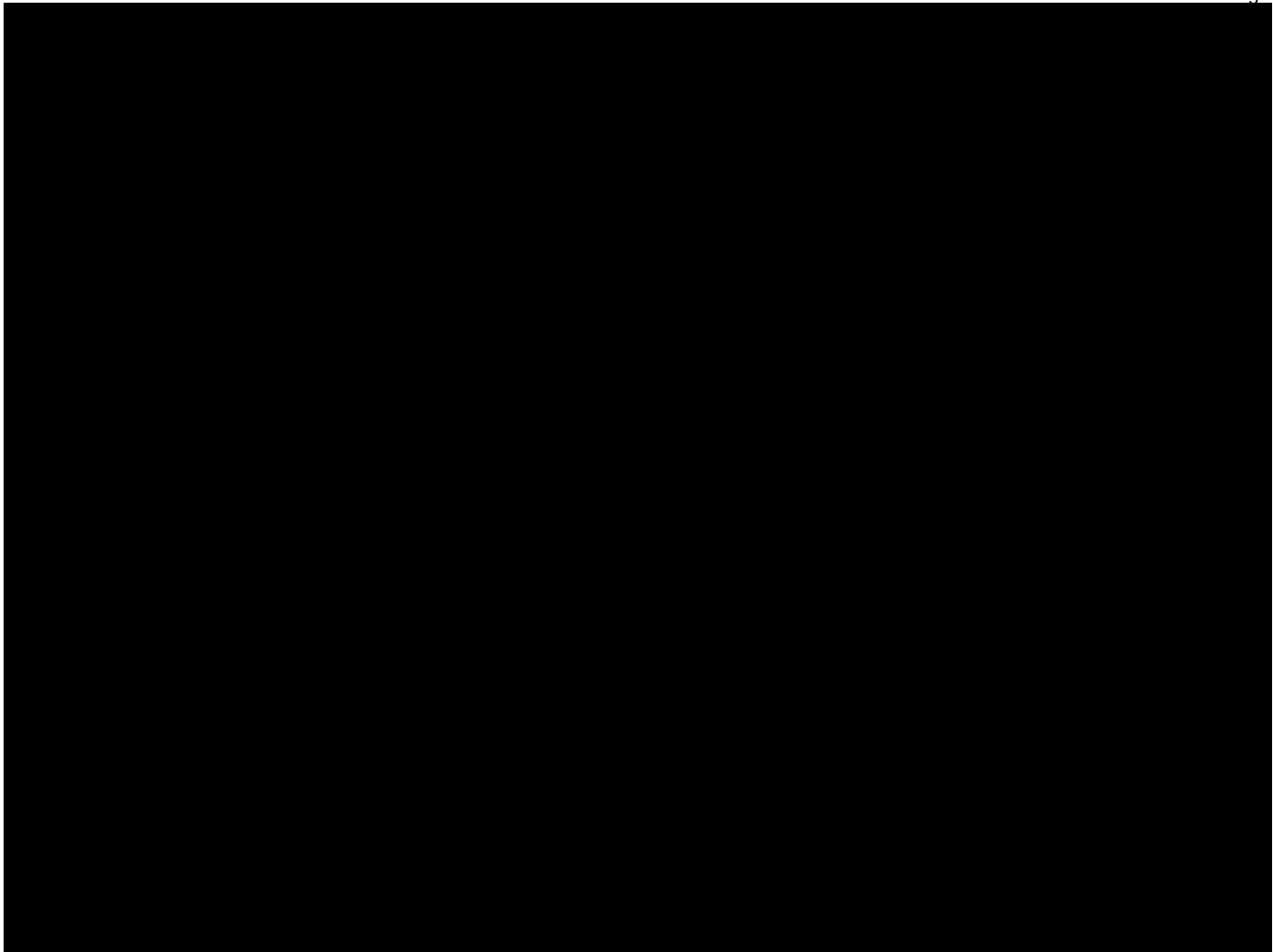
- **Smart Grid - implementation of foundational grid transformation and modernization projects**
  - **SCADA additional modules** – SCADA system migrated to new facility. Work continues post implementation to fix issues and undertake minor enhancements.
  - **Telecom Dark Fibre Network** – Fibre construction progressed. The team continued to face hurdles such as construction permits (the city has been slow) as well as a harsh winter. However, 26km has been completed and another 35km is under construction. Discussions ongoing regarding communication strategy for GRID after receiving AMI strategy back from Black and Veatch.
- **Continued improvements in maintenance and capital program execution to enhance reliability of our distribution system**
  - **Distribution System Renewal and Service (Sustainment Capital Program)**
    - **System Renewal and Service:** Overall Q1 spending of \$10.3M exceeded budget by ~\$1M due mainly to overspends in Communications Infrastructure (combination of timing and adverse weather in Q1 which resulted in additional costs due to cold weather delays and snow clearing)
    - **Emergency Renewal :** Q1 spending exceeded budget by \$594k due primarily to overspend in poles and cable. Combination of timing variances and an increased focus on inspection and maintenance
  - **Distribution System Access (Demand Capital Program)**
    - Q1 spending is \$706k below budget with a corresponding reduction in capital contributions. Overall capital contributions percentage is line with budget
  - **Distribution Testing, Inspection and Maintenance Programs**
    - Q1 spending is below budget by \$347k with an overall spend of \$4.6M. All programs are expected to be completed on time and within budget by year end

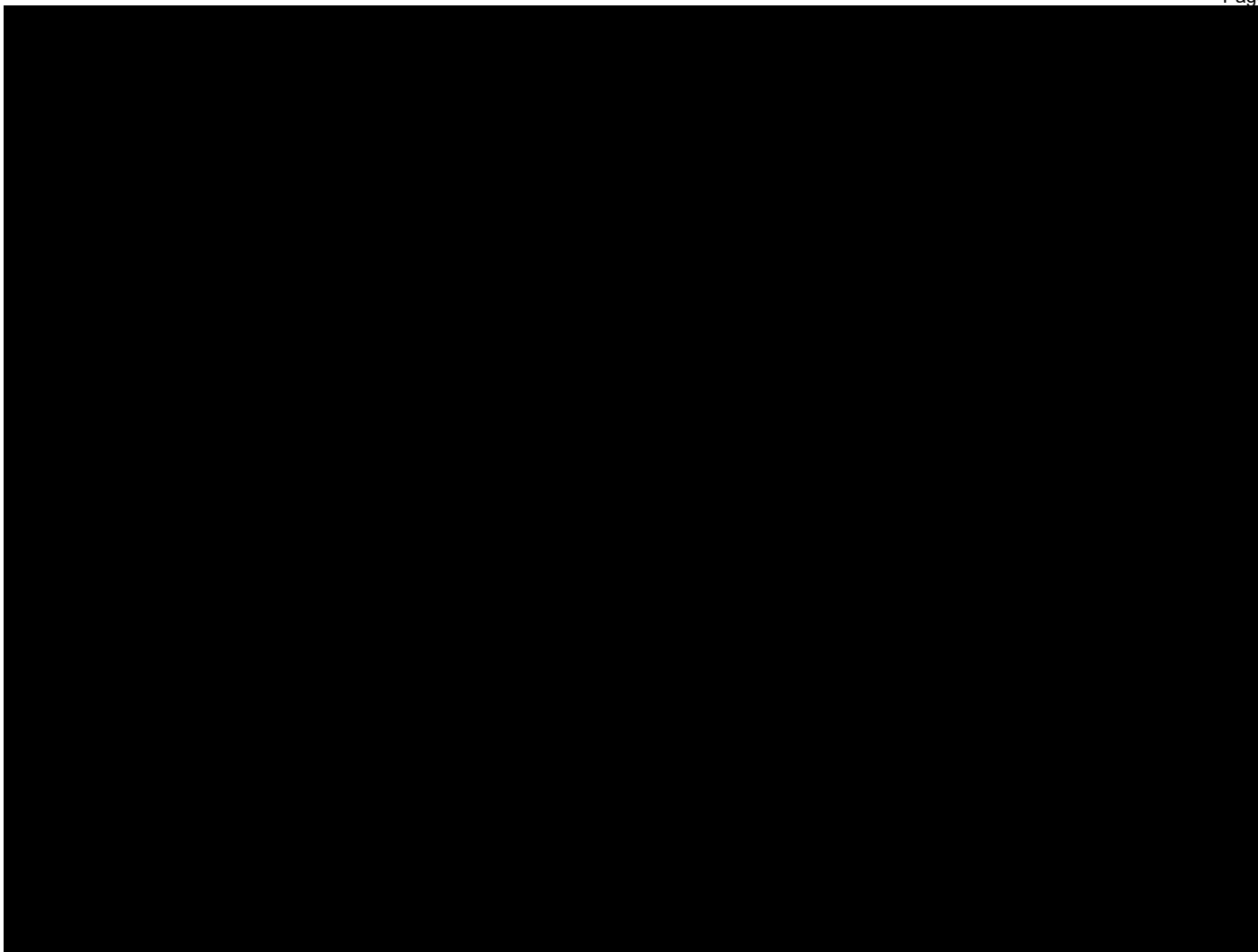














**Section 4 –  
Compliance, Legal Issues and  
Provincial Programs**

## Compliance, Legal Issues And Provincial Programs Q1-2019 Update

### LEGISLATIVE AMENDMENTS

- **Bill 87, *Fixing the Hydro Mess Act*** - This bill is intended to deliver further on the Ford government's commitment to lowering costs and finding efficiencies in the energy sector. The bill proposes major amendments to several key electricity-related statutes.
- **Bill 57 – *Restoring Trust, Transparency and Accountability Act, 2018*** deferred the ***Pay Transparency Act, 2018*** to an unspecified future date and introduced changes for designating beneficiaries to the ***Pension Benefits Act***.
- **Bill 47 – *Making Ontario Open for Business Act, 2018*** repealed many of the changes implemented by the ***Fair Workplaces, Better Jobs Act, 2017***, including repeal of **Personal** Emergency Leave (and the requirement for employers to pay for the first 2 days) with the introduction of three new unpaid leaves (Sick Leave, Family Responsibility and Bereavement Leave), repeal of scheduling and on-call provisions, equal pay for equal work based on employment status, and the previous amendments to the *Labour Relations Act*.
- **Bill 66 – *Restoring Ontario's Competitiveness Act, 2018*** made amendments to the ***Employment Standards Act, 2000 (ESA)***, the ***Labour Relations Act, 1995*** and the ***Pension Benefits Act*** removing a number of regulatory burdens on employers relating to items ranging from the posting of ESA information to overtime averaging agreements.
- **Workplace Safety and Insurance Board** - changing how premium rates are calculated in September 2019 – effective January 1, 2020. Implementing the North American Industry Classification System (NAICS) used by StatsCan and CRA - moving from 155 rate groups to 34 rate classes. Rates will be based on a combination of: company's risk profile and share of responsibility to maintain the insurance fund; how individual claim history compares to other businesses in the rate class; insurable earnings, claims costs and number of allowed claims over a 6 year period; and a predictability factor - using past performance to predict future outcomes. We are currently investigating potential impacts on Hydro Ottawa.

## Compliance, Legal Issues and Provincial Programs Q1-2019 update

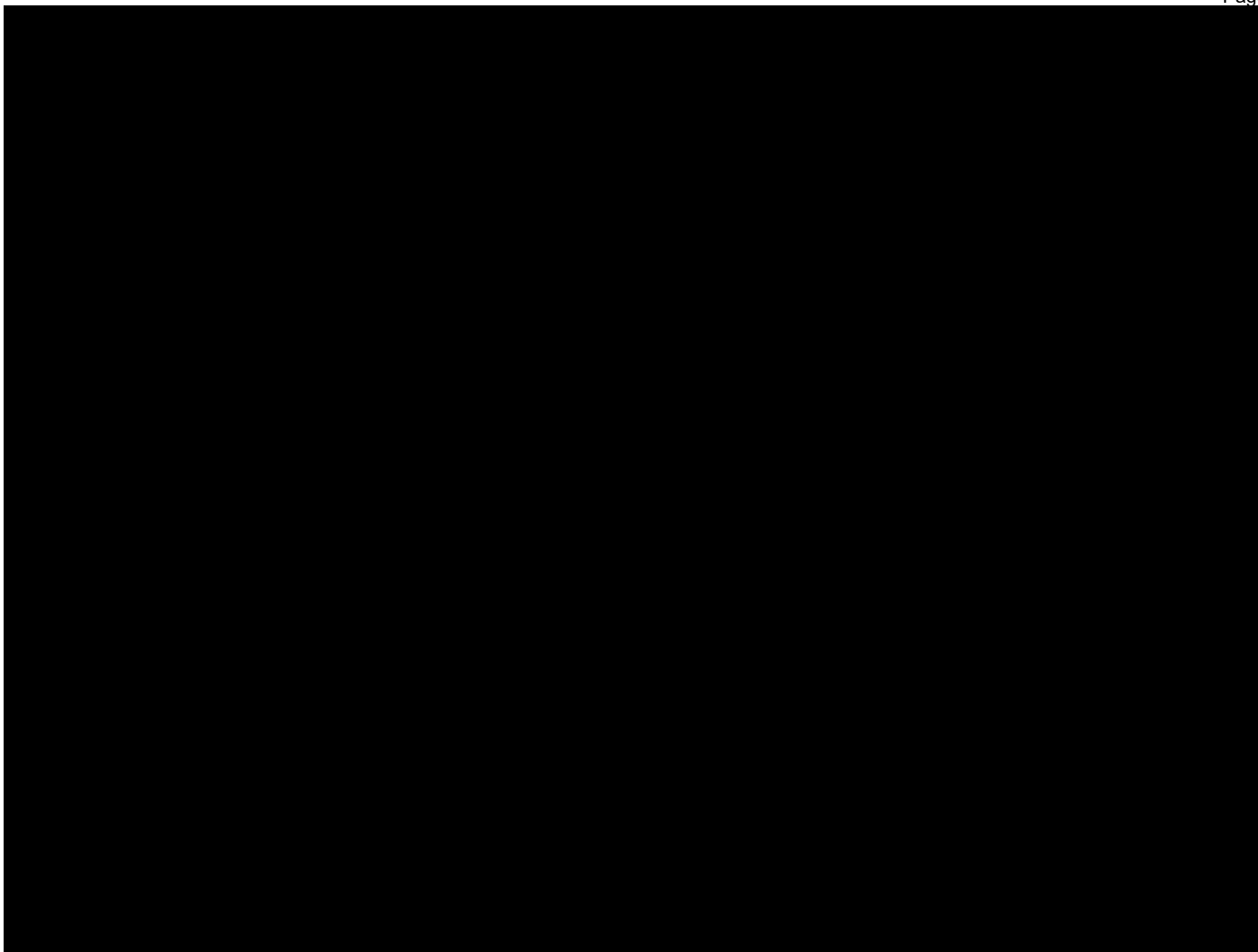
### PROVINCIAL

- The provincial government announced additional action to lower costs in the sector. Bill 87 will make consequential reforms to Ontario's conservation framework, as well as to the OEB's governance structure. The bill also modifies aspects of rate relief programs under the Fair Hydro Plan.
- There were several OEB policy developments and announcements of interest, all of which will have significant impacts on Hydro Ottawa if they move forward:
  - Commercial & Industrial Rate Design – release of OEB staff paper proposing changes to the rates that are charged to commercial and industrial customers.
  - Activity and Program Based Benchmarking – publication of OEB staff discussion paper outlining elements of a new framework for comparing the unit costs of utilities' activities.
  - Launch of consultations on Utility Remuneration and Responding to Distributed Energy Resources.
- The IESO issued its third major market reform proposal, under the auspices of its Market Renewal program. This latest proposal contemplates the establishment of an incremental capacity auction – a competitive mechanism for procuring new generation resources in Ontario. If adopted, this proposal would mark the end of the era of long-term power purchase agreements for new supply.

### COMPLIANCE

- On March 14, 2019, the OEB issued code amendments in relation to their review of the Customer Service Rules, Phase 1 eliminating certain collection-related and account management charges, as well as, introducing more liberal account payment timelines. These provisions, in conjunction with the mandatory disconnection moratorium for residential customers, could result in higher bad debt and operating costs.







## Section 5 – Progress Against Plan – Corporate Performance Scorecard

## Financial Strength – Year to Date Results Q1 2019

### Corporate Performance Goals And Priorities

Enterprise Strategic Objective	We will create sustainable growth in our business and our earnings By improving productivity and pursuing business growth opportunities that leverage our strengths – our core capabilities, our assets and our people	
Enterprise Strategic Outcome	Growth in shareholder value	
2019 Corporate Performance Goals and Supporting Priorities		Assessment ● ▲ X
1. Grow revenues from new sources		
b. Distribution		▲
i. Continue to approach other LDCs in Ontario regarding potential acquisition/mergers/partnerships		
ii. Continue to expand our distribution system through acquisition of customer-owned assets (e.g. Ottawa International Airport, DND Uplands)		▲
d. Other ancillary services that leverage Hydro Ottawa's brand and competitive advantage in the industry		●
i. Electrical service and construction offerings - emergency repair and replacement of customer-owned distribution assets, meter services for other entities such as OPG, distribution sub-station services to other LDCs and private businesses, forestry services		
ii. Regional Training		●
aa. Continue development and implementation of all levels of Training Delivery Agent Status Powerline Technician training and certification with Algonquin College		
bb. Continue to market and enhance training services to other LDCs / contractors		●

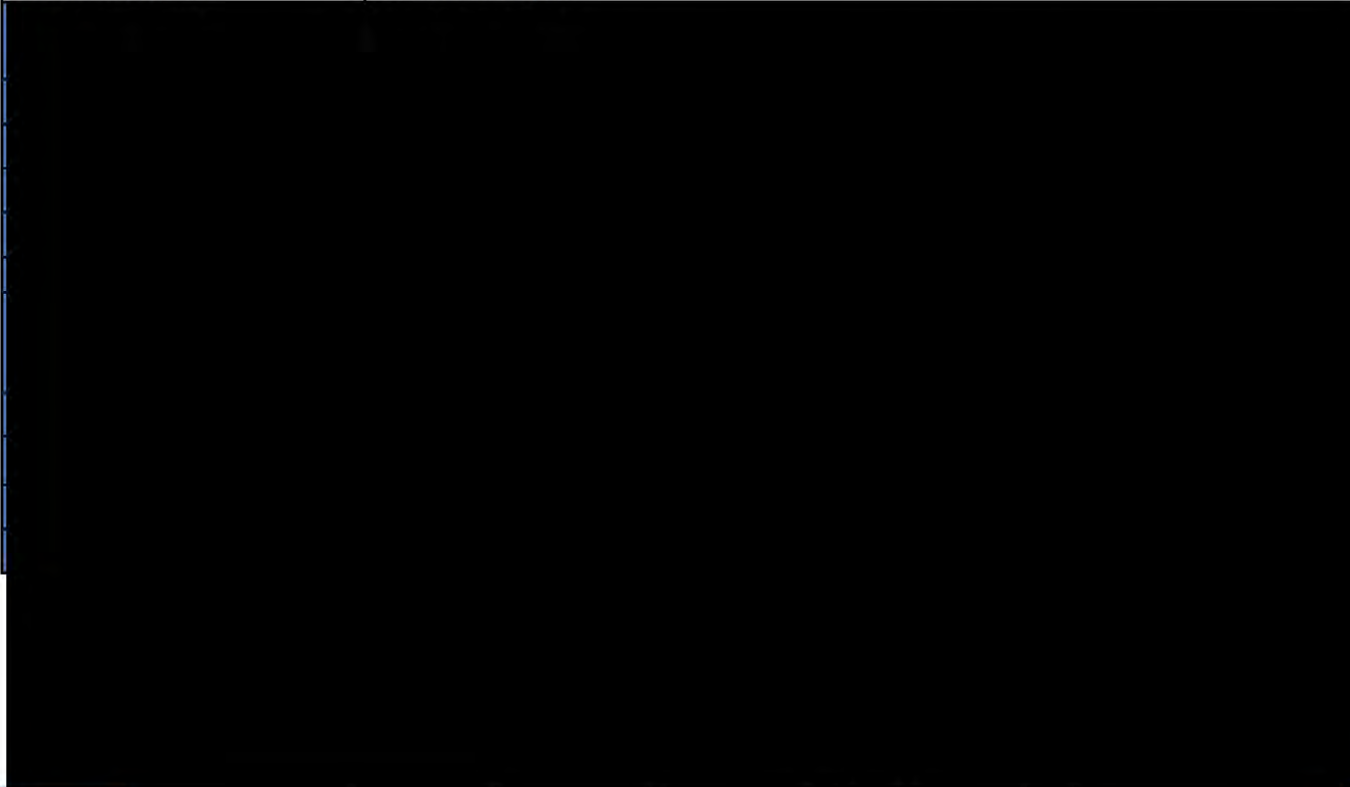
## Financial Strength – Year to Date Results Q1 2019

### Corporate Performance Goals And Priorities

Enterprise Strategic Objective	<p><b>We will create sustainable growth in our business and our earnings</b></p> <p><i>By improving productivity and pursuing business growth opportunities that leverage our strengths – our core capabilities, our assets and our people</i></p>	
Enterprise Strategic Outcome	Growth in shareholder value	
2019 Corporate Performance Goals and Supporting Priorities		<p>Assessment</p> <p>●●●●●</p>
2. Enhance / protect revenues from existing business lines		
b. 2021-2025 Electricity Custom Incentive Rate Application – finalize planning, preparations, and submission by end of 2019		●

## Financial Strength – Year to Date Results Q1 2019

### Corporate Performance Measures And Targets

Enterprise Strategic Objective	<p>We will create sustainable growth in our business and our earnings</p> <p><i>By improving productivity and pursuing business growth opportunities that leverage our strengths, our core capabilities, our assets and our people</i></p>
Enterprise Strategic Outcome	Growth in shareholder value
	

## HOL Financial Strength – Year to Date Results Q1 2019

### Corporate Performance Measures And Targets

Enterprise Strategic Objective	We will create sustainable growth in our business and our earnings By improving productivity and pursuing business growth opportunities that leverage our strengths, our core capabilities, our assets and our people								
Enterprise Strategic Outcome	Growth in shareholder value								
2019 HOL Performance Measures	2014A CGAAP	2015A IFRS	2016A IFRS	2017A IFRS	2018A IFRS	2019T IFRS	Q1 YTD Target IFRS	Q1 YTD Actual IFRS	Q1 YTD Assessment ● X
Net Income	\$27.9M	\$35.5M	\$34.3M	\$36.5M	\$37.2M	\$34.9M	\$8.9M	\$10.0M	●
Revenue (excl CDM) <sup>1</sup>	\$168.5M	\$172.8M	\$182.0M	\$187.1M	\$199.2M	\$208.7M	\$52.0M	\$51.5M	X
OM&A - Net (excl CDM) <sup>1</sup>	\$86.0M	\$84.5M	\$87.9M	\$87.5M	\$95.1M	\$96.4M	\$24.5M	\$23.2M	●
Return on Equity	10.1%	12.1%	11.0%	11.1%	10.7%	9.4%	9.4%	9.4%	●
Cash Flow from Operations <sup>2</sup>	\$94.3M	\$69.0M	\$78.0M	\$78.3M	\$114.3M	\$110.3M	\$26.9M	\$26.1M	X
CAPEX									
System Renewal and Service (excl Plant Failure) <sup>3</sup>	\$74.0M	\$54.5M	\$57.3M	N/A	N/A	N/A	N/A	N/A	N/A
Plant Failure <sup>3</sup>	N/A	N/A	\$7.8M	N/A	N/A	N/A	N/A	N/A	N/A
General (incl Facilities Renewal Program) <sup>3</sup>	\$15.7M	\$10.2M	\$15.7M	N/A	N/A	N/A	N/A	N/A	N/A
Cumulative Capital Additions									
General Plant	N/A	N/A	N/A	\$31.0M	\$37.9M	\$39.8M	\$34.1M	\$39.8M	●
System Renewal & Service	N/A	N/A	N/A	\$116.0M	\$186.4M	\$220.0M	\$187.2M	\$189.6M	●
Labour Allocation to CAPEX	60%	61%	62%	60%	58%	60%	59%	58%	X
Debt to Capitalization Ratio <sup>4</sup>	N/A	N/A	N/A	N/A	N/A	65%	64.8%	65.2%	X
CDM – Cumulative GWh reduction <sup>5</sup>	415 GWh	78 GWh	90 GWh	276 GWh	324 GWh	375 GWh	N/A	N/A	N/A

<sup>1</sup> In 2016, these measures were modified to exclude CDM

<sup>2</sup> In 2016 & 2017, Cash flow from Operations on financial statement includes reclassifications of deferred revenue and customer deposits, the actual results are based on the previous reporting method to compare to the target, starting 2018, result was aligned with financial statement reporting

<sup>3</sup> In 2016, Plant Failure was added as a separate measure and excluded from the overall CAPEX measure

<sup>4</sup> New measure added in 2019

<sup>5</sup> 2015 and 2016 are annual reductions not cumulative. 2015, 2016, and 2017 results restated based on IESO confirmed results received in subsequent years. Announced on March 2019, LDCs will no longer receive incentive payments for achieving assigned targets for electricity savings

## Customer Value – Year to Date Results Q1-2019

### Corporate Performance Goals and Priorities

<b>Enterprise Strategic Objective</b>	<b>We will deliver value across the entire customer experience</b> <i>By providing reliable, responsive and innovative services at competitive rates</i>	
<b>Enterprise Strategic Outcome</b>	<b>Customer loyalty</b>	
<b>2019 Corporate Performance Goals and Supporting Priorities</b>		<b>Assessment</b> ●●●X
<b>3. Assist customers in managing their energy consumption and electricity costs</b>		
<b>a. CDM</b> – Continue to deliver a range of CDM programs that are customer-centric, cost effective and generate strong GWh results, e.g.		<b>X</b>
i. Residential Programs including Hydro Ottawa's app		
ii. Commercial Programs including Small Business Lighting and building retrofit		<b>X</b>
<b>b. Electricity Support Programs</b> – Continue to manage the provincial program(s) that provide ongoing financial assistance to qualifying low-income electricity consumers including		●
i. Ontario Electricity Support Program (OESP)		●
ii. Low-Income Energy Assistance Program (LEAP)		●
iii. Affordability Trust		
<b>c. Customer Education Program</b> – Continue to increase understanding of the industry and Hydro Ottawa's role and achievements within it; demystify and educate by leveraging multiple modes (digital and social media, video, open houses, workshops, etc.) and multiple channels (local media, Councillors, subject matter experts, executive and senior management)		●
<b>d. Energy Innovation Projects</b> – Actively pursue and participate in innovation projects to identify new energy saving product/service offerings for our customers		●
i. Great Demand Response Project (IESO Smart Grid funding in partnership with industry and academia, e.g. Ottawa and Gloucester Community Housing, Ottawa U, Panasonic, Tabouchi)		●
ii. EV Support Equipment Manifold (EVSEM) - charging infrastructure pilot project for constrained urban environments (pending funding by NRCAN)		●
iii. EV Innovation Development/Deployment (EVID) – working with local taxi company to facilitate the charging infrastructure for an electric taxi fleet (pending funding from NRCAN)		●
iv. Distributed Energy Resources – continue to monitor and engage on opportunities		●

## Customer Value – Year to Date Results Q1-2019

### Corporate Performance Goals and Priorities

<b>Enterprise Strategic Objective</b>	<b>We will deliver value across the entire customer experience</b> <i>By providing reliable, responsive and innovative services at competitive rates</i>	
<b>Enterprise Strategic Outcome</b>	<b>Customer loyalty</b>	
<b>2019 Corporate Performance Goals and Supporting Priorities</b>		<b>Assessment</b> ● ▲ ✕
<b>4. Deliver on customer expectations for service quality and responsiveness</b>		
<b>a. Improve Customer Service</b> – Implement the ‘whole of company’ Customer Experience (Cx) Strategy and Roadmap with a focus on modernization, customer communications and customer self-serve:		▲
i. <b>Change Management Plan</b> – Implement the multi-year change management plan to align people and organization to the Cx Strategy and Roadmap, with a focus on increasing organization-wide awareness, support and alignment for a customer-centric culture consistent with the Organizational Culture Strategy		●
ii. <b>New Service / Product Offerings</b> – Work with existing customers to define and tailor product/service offerings, e.g. EV and energy storage solutions		●
iii. <b>Regulatory</b> : e.g. provincial programs, migration to fixed rate and C1 class customers to HOEP		●
iv. <b>Customer Touchpoint Improvements</b> –		
aa. Outage communications – Incorporate technology solutions to support outbound outage reporting across multiple channels / app & SMS		●
bb. Annual Go Paperless campaign		
cc. Hydro Ottawa app engagement campaign		●
v. <b>Understanding Customers</b> – Implement systems and processes to support a 1:1 conversation with customers		
aa. <b>Customer Preference Dashboard</b> (database) – continue development of interface to centralize customer data points to support targeted and personalized communications		●
bb. <b>Marketing Automation Platform</b> – extend solution to automate and provide insightful analytics of marketing campaigns and communications for HOL		●
cc. <b>Email Management Platform</b> – Implement email management solution to streamline routing of customer communications		●
dd. <b>Strategic Account Management Plan</b> – Continue relationship building with, and develop of product offerings for, key accounts, developers and contractors; capture market intelligence, improve internal collaboration, increase customer value and create trusted advisor role		●
ee. <b>Business Intelligence</b> – Leverage Tableau Reporting tool to allow us to better target customer segments for different program / service offerings		●
vi. <b>Technology and Process Enhancements</b>		
aa. <b>Website</b> – Upgrade external websites		●
bb. <b>Enterprise Communications Platform</b> - Leverage platform functionality for multi-channel communication (voice, text, email, chat, etc.)		●

## Customer Value – Year to Date Results Q1-2019

### Corporate Performance Goals and Priorities

Enterprise Strategic Objective	We will deliver value across the entire customer experience <i>By providing reliable, responsive and innovative services at competitive rates</i>	
Enterprise Strategic Outcome	Customer loyalty	
2019 Corporate Performance Goals and Supporting Priorities		Assessment ● ▲ ✖
5. Maintain overall distribution system reliability		
a. Smart Grid – Continue implementation of grid transformation and modernization projects including		●
i. New SCADA system - implement additional modules		
ii. [REDACTED]		[REDACTED]
b. Maintain or enhance our best in class reliability metrics		●
c. Continue our improvements in maintenance and capital program execution – Emphasis on workforce scheduling and contractor management; Complete all budgeted programs / plans on time and within budget		●
i. Distribution System Renewal and Service (Sustainment Capital Program) – Ongoing implementation of refurbishment and enhancement programs with particular emphasis on aging infrastructure, areas with chronic reliability issues, and on station capacity		●
ii. Distribution System Access (Demand Capital Program) – Ongoing implementation of new residential and commercial customer connections, system expansions, and third party driven plant relocations and upgrades		●
iii. Distribution Testing, Inspection and Maintenance Programs – Ongoing implementation of distribution system and station asset evaluations (testing and inspections of poles, cables, manhole chambers and switches); forestry program execution		●

## Customer Value – Year to Date Results Q1-2019

### Corporate Performance Measures and Targets

Enterprise Strategic Objective	We will deliver value across the entire customer experience By providing reliable, responsive and innovative services at competitive rates								
Enterprise Strategic Outcome	Customer loyalty								
2019 Corporate Performance Measures	2014A	2015A	2016A	2017A	2018 A	2019T	Q1 YTD Target	Q1 YTD Actual	Q1 YTD Assessment
SATISFACTION									
Residential & Small Commercial Annual Satisfaction Survey	HO/ON Pre83%/83% Post89%/80%	HO/ON Pre 87%/86% Post85%/83%	HO / ON Pre81%/81 Post77%/74%	HO / ON Pre90%/85% Post87%/81%	HO / ON Pre 94%/91% Post 93%/89%	≥91%	Annual Metric	Annual Metric	Annual Metric
Large Commercial Annual Satisfaction Survey	N/A	N/A	N/A	90%	HO / ON Pre 94%/93% Post 95%/93%	≥85%	Annual Metric	Annual Metric	Annual Metric
Call Centre Monthly Transaction Survey	88%	90%	89%	87%	78%	≥90%	≥90%	87%	X
Ability to deal with issues (First Call Resolution)	84%	85%	85%	84%	86%	≥86%	≥85%	88%	●
Complaints – Total Number	140	124	106	71	182	≤120	≤9	5	●
Complaints – At Fault	N/A	N/A	N/A	N/A	N/A	≤20 <sup>2</sup>	≤1	1	●
VALUE									
Number of hydrotawa.com sessions <sup>1</sup>	1,047,749	1,267,505	3,170,766	6,088,429	6,623,907	>2,500,000	>625,000	676,179	●
Number of MyAccount customers	122,300	136,890	158,112	167,114	184,067	>186,000	>184,550	189,127	●
Number of e-bill accounts	85,991	102,007	123,801	134,761	150,991	>160,000	>153,243	155,177	●
Number of Auto pay accounts	46,098	48,751	51,520	54,789	63,014	>70,000	>64,761	64,707	X
Number of App Registrants (Downloads)	N/A	N/A	N/A	12,519	24,363	>30,000	>25,772	25,825	●
Number of Mobile App Sessions <sup>1</sup>	N/A	N/A	N/A	8,585		>130,000	>32,500	20,766	X
Number of Twitter Followers <sup>1</sup>	7,630	10,825	12,976	15,687	33,293	>40,000	>34,970	33,979	X
Number of Facebook Followers <sup>1</sup>	N/A	482	2,006	3,039	7,292	>8,500	>7,594	7,347	X
Number of LinkedIn Followers <sup>1</sup>	N/A	2,500	3,358	4,892	6,274	>6,200	>5,219	5,077	X

<sup>1</sup> These metrics were moved from Corporate Citizenship Scorecard to Customer Value Scorecard

## Customer Value – Year to Date Results Q1-2019

### Corporate Performance Measures and Targets

Enterprise Strategic Objective	We will deliver value across the entire customer experience By providing reliable, responsive and innovative services at competitive rates								
Enterprise Strategic Outcome	Customer loyalty								
2019 Corporate Performance Measures	2014A	2015A	2016A	2017A	2018A	2019T	Q1 YTD Target	Q1 YTD Actual	Q1 YTD Assessment
<b>PRODUCT RELIABILITY</b>									
SAIFI – Average Number of Times that Power to a Customer is Interrupted 5 year average <sup>1</sup> 3-year average <sup>2</sup>	0.99 <del>1.12</del>	0.97 <del>0.99</del>	0.89 <del>0.80</del>	0.82 <del>0.80</del>	0.93	≤0.75 N/A	≤0.75 N/A	0.728	●
SAIFI – Average Number of Times that Power to a Customer is Interrupted Annual excluding LOS and MEDs <sup>2</sup> Annual including LOS and MEDs <sup>3</sup>	0.74 0.86 <sup>4</sup>	0.72 0.75 <sup>4</sup>	0.69 0.78 <sup>4</sup>	0.79 0.87 <sup>4</sup>	0.78 (1.78 <sup>1</sup> )	≤0.75 (N/A <sup>3</sup> )	≤0.11 (N/A <sup>3</sup> )	0.100 (0.108)	●
SAIDI – Average Number of Hours that Power to a Customer is Interrupted 5 year average <sup>1</sup> 3-year average <sup>2</sup>	1.07 <del>1.51</del>	1.13 <del>1.46</del>	1.09 <del>1.29</del>	1.10 <del>1.29</del>	2.05	≤1.00 N/A	≤1.00 N/A	0.976	●
SAIDI – Average Number of Hours that Power to a Customer is Interrupted Annual excluding LOS and MEDs <sup>2</sup> Annual including LOS and MEDs <sup>3</sup>	1.08 1.59 <sup>4</sup>	1.08 1.15 <sup>4</sup>	1.00 1.13 <sup>4</sup>	1.19 1.58 <sup>4</sup>	0.85 (22.724 <sup>1</sup> )	≤1.00 N/A <sup>3</sup>	≤0.17 N/A <sup>3</sup>	0.112 (0.121)	●
FEMI (Feeders Experiencing Multiple Interruptions) – Number of feeders with 10 or more interruptions per year	8	9	5	15	10	≤12	≤12	10	●

<sup>1</sup> Excludes Loss of Supply and Major Event days, previously this measure was a three year average, however both industry and the OEB reports on a 5 year average

<sup>2</sup> LOS = Loss of Supply, MED = Major Event Days

<sup>3</sup> No target set for SAIFI and SAIDI including LOS and MEDs

<sup>4</sup> Previously this metric included MEDs but still excluded LOS

## Organizational Effectiveness – Year to Date Results Q1-2019

### Corporate Performance Goals and Priorities

Enterprise Strategic Objective	<b>We will achieve performance excellence</b> <i>By cultivating a culture of innovation and continuous improvement</i>	
Enterprise Strategic Outcomes	<ul style="list-style-type: none"> <li>• <i>Efficient and effective operations</i></li> <li>• <i>Safe and healthy work environment</i></li> <li>• <i>Engaged, aligned and prepared workforce</i></li> </ul>	
2019 Corporate Performance Goals and Supporting Priorities		Assessment ●▲×
6. Continue to enhance operational performance and productivity		

## Organizational Effectiveness – Year to Date Results Q1-2019

### Corporate Performance Goals and Priorities

Enterprise Strategic Objective	We will achieve performance excellence <i>By cultivating a culture of innovation and continuous improvement</i>	
Enterprise Strategic Outcomes	<ul style="list-style-type: none"> <li>• <i>Efficient and effective operations</i></li> <li>• <i>Safe and healthy work environment</i></li> <li>• <i>Engaged, aligned and prepared workforce</i></li> </ul>	
2019 Corporate Performance Goals and Supporting Priorities		Assessment ● ▲ X
6. Continue to enhance operational performance and productivity		

## Organizational Effectiveness – Year to Date Results Q1-2019

### Corporate Performance Goals and Priorities

Enterprise Strategic Objective	We will achieve performance excellence By cultivating a culture of innovation and continuous improvement	
Enterprise Strategic Outcomes	<ul style="list-style-type: none"> <li>Efficient and effective operations</li> <li>Safe and healthy work environment</li> <li>Engaged, aligned and prepared workforce</li> </ul>	
2019 Corporate Performance Goals and Supporting Priorities		Assessment ● ▲ ✕
5. Continue to enhance operational performance and productivity (continued)		
f. <b>Facilities Renewal Program</b> - Advance the implementation of the Board approved plan to replace the end of life main office and the south and east operations centres with purpose built facilities which will address location, energy efficiency, employee engagement, etc.		●
i. Complete the design build of the Administration building and the East and South Operations Centres, operational integration and migration, regulatory case preparation, and property disposition		
7. Maintain leading health and safety record		
a. <b>Occupational Health, Safety and Environment (OHSE) Management System</b>		●
i. Maintain registration of OHSE management system and prepare for update to new ISO 45001 standard (replacing OHSAS 18001)		●
ii. Complete required OHSE training		●
iii. [REDACTED]		[REDACTED]
iv. Continue implementation of OHSE Targeted Action Plan		●
v. Renew physical demands analysis for positions requiring significant physical effort		▲

## Organizational Effectiveness – Year to Date Results Q1-2019

### Corporate Performance Goals and Priorities

Enterprise Strategic Objective	<b>We will achieve performance excellence</b> <i>By cultivating a culture of innovation and continuous improvement</i>	
Enterprise Strategic Outcomes	<ul style="list-style-type: none"> <li>• <i>Efficient and effective operations</i></li> <li>• <i>Safe and healthy work environment</i></li> <li>• <i>Engaged, aligned and prepared workforce</i></li> </ul>	
2019 Corporate Performance Goals and Supporting Priorities		Assessment ●▲×
8. Continue to enhance organizational and employee capability		
a. Union Management Relations –		
i. Application for certification by SEP for representation at HOL		●

## Organizational Effectiveness – Year to Date Results Q1-2019 Corporate Performance Measures and Targets

Enterprise Strategic Objective	We will achieve performance excellence By cultivating a culture of innovation and continuous improvement								
Enterprise Strategic Outcomes	<ul style="list-style-type: none"> <li>Efficient and effective operations</li> <li>Safe and healthy work environment</li> <li>Engaged, aligned and prepared workforce</li> </ul>								
2019 Corporate Performance Measures	2014A	2015A	2016A	2017A	2018A	2019T	Q3 YTD Target	Q3 YTD Actual	Q3 YTD Assessment
OM&A per customer - HOL only (excl CDM) <sup>1</sup>	\$269	\$261	\$268	\$264	\$204	≤\$284	≤\$73	\$69	●
Revenue per employee (excl CDM) <sup>2</sup>	\$0.32M	\$0.31M	\$0.32M	\$0.34M	\$0.379M	≥\$0.38M	≥\$0.089M	\$0.099M	●

<sup>1</sup> In 2016, this measure was modified to exclude CDM

<sup>2</sup> In 2016, these measures were modified to exclude CDM & Street Lighting, and in 2019 the measure was modified to exclude CDM only, streetlighting included in Envari base revenue

## Organizational Effectiveness – Year to Date Results Q1-2019

### Corporate Performance Scorecard

Enterprise Strategic Objective	We will achieve performance excellence By cultivating a culture of innovation and continuous improvement
Enterprise Strategic Outcomes	<ul style="list-style-type: none"> <li>Efficient and effective operations</li> <li>Safe and healthy work environment</li> <li>Engaged, aligned and prepared workforce</li> </ul>

Measures		Description	2014A	2015A	2016A	2017A	2018A	2019 Target	Q1 Target	Q1 Actual		
Labour Utilization	Productive Time	% of Billable Hours / Total Regular Hours	71%	74%	74%	73%	72%	≥ 74%	≥ 74%	74%	●	On target, it is expected to decline slightly in Q2 due to the move
	Labour Allocation to CAPEX	% of Labour Time on Capital Activities / Total Productive Time	60%	61%	62%	60%	58%	≥ 60%	≥ 59%	58%	▲	Slightly below target due to a slight shift from capital to maintenance
	Average Sick Days per FTE (annualized)	Total Sick Days / Total Employees	5.9	6.3	5.9	6.0	7.1	≤ 6.0	≤ 6.3	8.2	✗	Exceeded target and the past two years results. The increase is attributed to an increase in longer term absences. With the top 5 sick leaves removed the result drops to 6.5 days
	e-Learning Training per employee (annualized)	Number of hours of e-learning / Total Employees	N/A	N/A	N/A	1.0	1.8	≥ 2.0	≥ 1	0.3	✗	Below target and prior year. Anticipated increase in Q2 with the students on board and the launch of cyber security e-learning
OM&A	Bad Debt as a % of Total Electricity Revenue	Bad Debt / Total Electricity Revenue	0.18%	0.01%	0.13%	0.20%	0.13%	≤ 0.12%	≤ 0.12%	0.16%	▲	Exceeded target, however improved from prior year. Bad debt in Q1 was on budget. Anticipated an improvement in Q2 when the OEB disconnection ban period ended
Asset Efficiency	Technology Infrastructure Cost per Employee	(External IT support costs + computer hardware & software depn) / # of FTE	\$21.5K	\$23.3K	\$24.4K	\$22.8K	\$26.5K	≤ \$24.9K	≤ \$24.9K	26.8K	▲	Exceeded target and remains the same as prior year. Total costs were materially on budget, however lower headcount, therefore higher costs per employee
Profitability Metrics	EBITDA as a % Revenue *											
		EBITDA \$ / Total Revenue - Hydro Ottawa Limited	44%	46%	52%	53%	54%	≥ 54%	≥ 53%	55%	●	Exceeded target and prior year. EBITDA increased by \$2.3M from Q1 2018, larger than the revenue increase of \$1.9M. It represents more profit generated by cost control.
	Inventory Turnover Ratio and Value	Cost of Materials Used / Average Inventory	1.83	1.73	2.27	1.93	1.55	≥ 2.00	≥ 1.95	1.64	✗	Below target and prior year largely in HOL; Streetlighting turns improved. Material issues were up but we continue to experience higher inventory level.


## Corporate Citizenship – Year to Date Results Q1-2019

### Corporate Performance Goals and Priorities

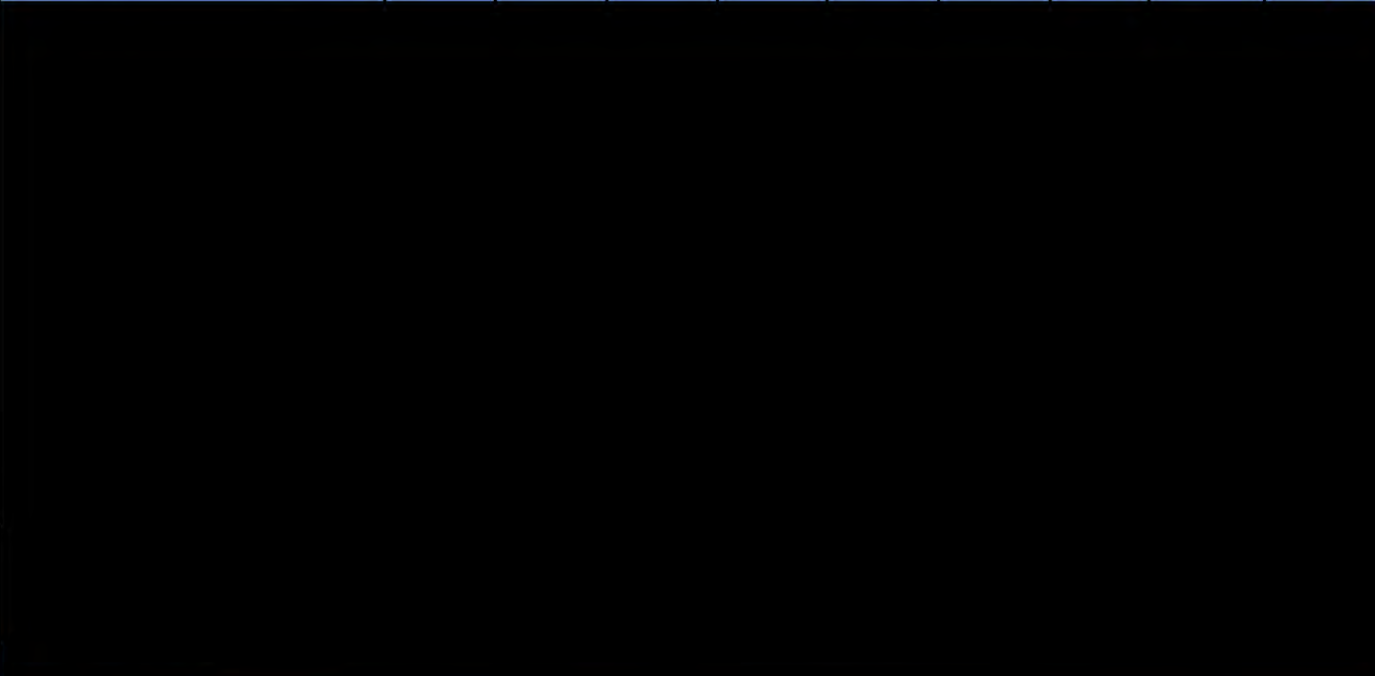
Enterprise Strategic Objective	We will contribute to the well being of the community <i>By acting at all times as a responsible and engaged corporate citizen</i>	
Enterprise Strategic Outcomes	<ul style="list-style-type: none"> <li>• <i>Leading governance and business practices</i></li> <li>• <i>Engaged stakeholders</i></li> <li>• <i>Safe, secure and environmentally responsible services</i></li> <li>• <i>Positive community impact</i></li> </ul>	
2019 Corporate Performance Goals and Supporting Priorities		Assessment ● ▲ ✕
9. Enhance our brand image in the community and the industry		

## Corporate Citizenship – Year to Date Results Q1-2019

### Corporate Performance Goals and Priorities

Enterprise Strategic Objective	We will contribute to the well being of the community <i>By acting at all times as a responsible and engaged corporate citizen</i>	
Enterprise Strategic Outcomes	<ul style="list-style-type: none"> <li>• <i>Leading governance and business practices</i></li> <li>• <i>Engaged stakeholders</i></li> <li>• <i>Safe, secure and environmentally responsible services</i></li> <li>• <i>Positive community impact</i></li> </ul>	
2019 Corporate Performance Goals and Supporting Priorities		Assessment 
9. Enhance our brand image in the community and the industry (continued)		
10. Improve our environmental performance and reduce our impact on the environment		





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## Corporate Citizenship – Year to Date Results Q1-2019

### Corporate Performance Measures And Targets

Enterprise Strategic Objective	We will contribute to the well being of the community <i>By acting at all times as a responsible and engaged corporate citizen</i>								
Enterprise Strategic Outcomes	<ul style="list-style-type: none"> <li>• <i>Leading governance and business practices</i></li> <li>• <i>Engaged stakeholders</i></li> <li>• <i>Safe, secure and environmentally responsible services</i></li> <li>• <i>Positive community impact</i></li> </ul>								
2019 Corporate Performance Measures	2014A	2015A	2016A	2017A	2018 A	2019T	Q1 YTD Target	Q1 YTD Actual	Q1 YTD Assessment ● X





## Board / Committee Report

**To:** Hydro Ottawa Holding Inc. Board of Directors

**Date:** 23 September 2019

**Submitted by:**

A handwritten signature in black ink, appearing to read "B. Conrad", positioned above a horizontal line.

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Bryce Conrad  
President and Chief Executive Officer

**Agenda Item:** 11 - President and Chief Executive Officer Quarterly Report Year to Date as at June 30, 2019

**Report Recommendation(s):**

That the Board of Directors of Hydro Ottawa Holding Inc. receive the quarterly report of the President and Chief Executive Officer year to date as at June 30, 2019.

## EXECUTIVE SUMMARY:

NA

## BACKGROUND:

1. Further to their respective charter responsibilities, the Hydro Ottawa Holding Inc. (HOHI) Board must regularly monitor HOHI's implementation of the enterprise Strategic Plan and HOHI's progress toward achieving that plan, and the Hydro Ottawa Limited (HOL) Board must regularly monitor HOL's implementation of its Business Plan (that is aligned to the enterprise Strategic Plan established by HOHI) and HOL's progress toward achieving it.
2. The quarterly President and Chief Executive Officer (CEO) report of progress against the annual Board-approved Corporate Performance Scorecard assists the Boards in fulfilling these charter responsibilities.
3. The quarterly President and CEO report and the Corporate Performance Scorecard are components of Hydro Ottawa's integrated planning and performance management framework that was put in place in April 2007 to strengthen alignment between our strategy and guiding principles to individual contribution and performance. This was in response to a need that had been identified in the 2005-2006 Governance Work Plan approved by the HOHI Board in August 2005 to improve Hydro Ottawa's governance and business practices.
4. The integrated planning and performance management framework provides for the following:
  - a. An enterprise strategic plan (our Strategic Direction) approved by the HOHI Board that sets our course for a five-year period;
  - b. Board-approved annual business plans at the both the HOHI and HOL levels comprised of a Corporate Performance Scorecard (priorities and measures and targets) and Budget that operationalize the enterprise strategic plan in a given year, and that cascade to employees through Individual Contribution Plans and performance appraisal system);
  - c. Regular monitoring and reporting of performance and progress against annual plans and budget including
    - i. Monthly reviews by the Executive Management Team of financials, status of priorities and critical projects, and performance measures and targets as established for each key area of focus in the annual Corporate Performance Scorecard,
    - ii. **A quarterly President and CEO Report to the two Boards of progress against the Corporate Performance Scorecard, including ERM reporting,**
    - iii. Quarterly Financial Reports and Monthly Updates to the Shareholder, and
    - iv. An Annual Report to the Shareholder; and
  - d. An annual review of the critical issues and opportunities facing the company by the Executive Management Team and subsequently by the Boards of Directors

to determine whether an adjustment to our five-year course is required as part of the development of the annual plan (Corporate Performance Scorecard and budget & financial outlook) for the next year.

**DISCUSSION:**

5. The presentation attached at Annex "A" is the President and CEO quarterly report to the Boards year to date as at June 30, 2019. It includes the following information:
  - a. Quarter at a Glance – Summary Corporate Priorities;
  - b. Enterprise Risk Management (ERM) Assessment;
  - c. Q2 2019 Results Highlights;
  - d. Progress Against Plan – Corporate Performance Scorecard (Qualitative Corporate Priorities and Quantitative Performance Measures and Targets);  
and
  - e. Compliance, Legal Issues and Provincial Programs.

**SUPPORTING DOCUMENTATION:**

Annex "A" - President & CEO Report Year to Date as at June 30, 2019

Annex "A"

The background of the slide features a collage of images related to Hydro Ottawa's operations and workforce. On the left, there are four overlapping photographs: a female worker in an orange safety vest and hard hat holding a tool; two male workers in safety vests and hard hats; three female employees in blue business attire; and a male employee at a computer. On the right, there is a large photograph of a dam with water flowing over its spillways. The Hydro Ottawa logo is positioned in the upper right area of the slide, above the tagline. The bottom right section of the slide has a dark blue background with white text.

**HydroOttawa**

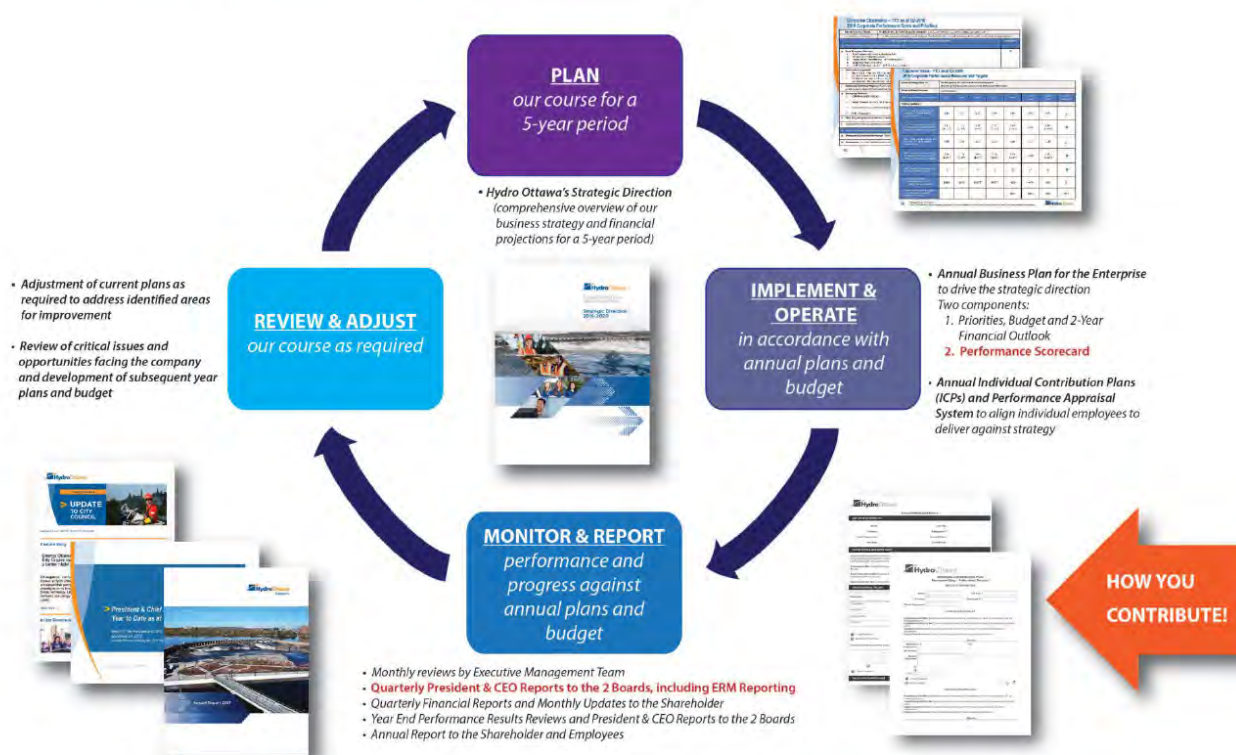
A leading partner in a  
smart energy future

**President & CEO Report  
Year to Date as at June 30, 2019**

Hydro Ottawa Limited and Hydro Ottawa  
Holding Inc. Boards of Directors

September 23, 2019

## Context – Our Integrated Planning & Performance Management Framework



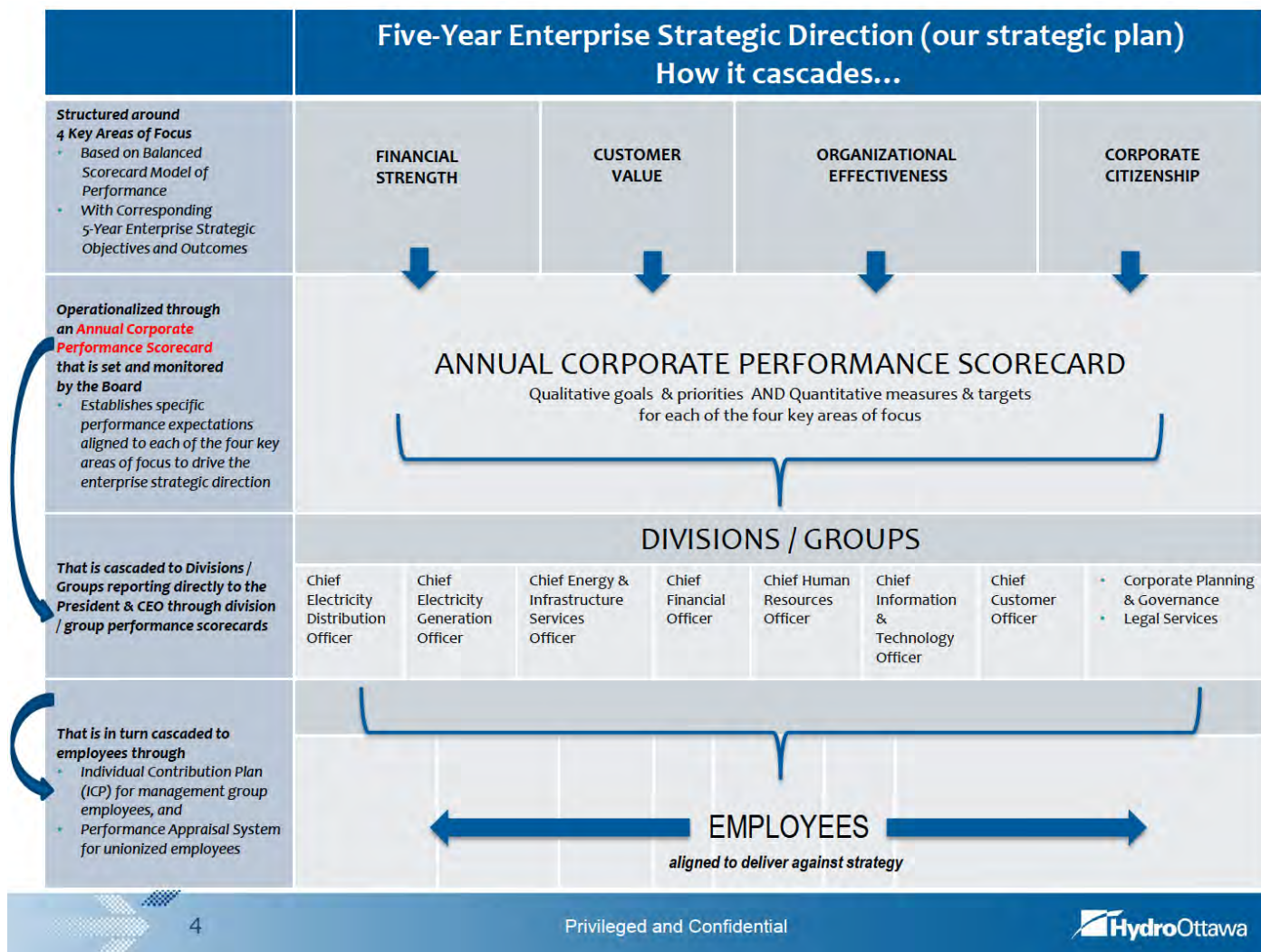
## Context – 2019 Corporate Performance Scorecard...

- For 2019, the Board approved **one corporate performance scorecard for the enterprise**
- The scorecard established qualitative performance goals and priorities and quantitative measures and targets in each of our four key areas of focus to support the advancement of the Strategic Direction in 2019

- Customer Value
- Financial Strength
- Organizational Effectiveness
- Corporate Citizenship



- The scorecard also included separate quantitative Financial Strength performance targets for the HOL entity
- Performance priorities for executive and management staff for 2019 were cascaded from the corporate performance scorecard (*see next slide*)
- Results highlights and progress against the scorecard (including ERM assessment) are reported quarterly to the HOHI and HOL Boards by the President & CEO





## Overview of Report

1. Quarter at a Glance – Summary Corporate Priorities
2. Enterprise Risk Management (ERM) Assessment
3. Q2 2019 Results Highlights
4. Compliance, Legal Issues and Provincial Programs
5. Progress Against Plan – Corporate Performance Scorecard
  - Qualitative Corporate Priorities
  - Quantitative Performance Measures and Targets



## Section 1 – Summary Corporate Priorities

## 2019 Performance Goals Summary

5-Year Enterprise Strategic Objectives and Outcomes (2016-2020)		2019 Corporate Performance Goals
Financial Strength	<p><b>Enterprise Strategic Objective:</b>            We will create sustainable growth in our business and our earnings  <i>By improving productivity and pursuing business growth opportunities that leverage our strengths – our core capabilities, our assets and our people</i></p> <p><b>Enterprise Strategic Outcome:</b>            Growth in shareholder value</p>	<ul style="list-style-type: none"> <li>• Grow revenues from new sources</li> <li>• Enhance / protect revenues from existing business lines</li> </ul>
Customer Value	<p><b>Enterprise Strategic Objective:</b>            We will deliver value across the entire customer experience  <i>By providing reliable, responsive and innovative services at competitive rates</i></p> <p><b>Enterprise Strategic Outcome:</b>            Customer loyalty</p>	<ul style="list-style-type: none"> <li>• Assist customers in managing their energy consumption and electricity costs</li> <li>• Deliver on customer expectations for service quality and responsiveness</li> <li>• Maintain overall distribution system reliability</li> </ul>
Organizational Effectiveness	<p><b>Enterprise Strategic Objective:</b>            We will achieve performance excellence  <i>By cultivating a culture of innovation and continuous improvement</i></p> <p><b>Enterprise Strategic Outcomes:</b>            Efficient and effective operations            Safe and healthy work environment            Engaged, aligned and prepared workforce</p>	<ul style="list-style-type: none"> <li>• Continue to enhance operational performance and productivity</li> <li>• Maintain leading health and safety record</li> <li>• Enhance organizational and employee capability</li> </ul>
Corporate Citizenship	<p><b>Enterprise Strategic Objective:</b>            We will contribute to the well being of the community  <i>By acting at all times as a responsible and engaged corporate citizen</i></p> <p><b>Enterprise Strategic Outcomes:</b>            Leading governance and business practices            Engaged stakeholders            Safe, secure and environmentally responsible services            Positive community impact</p>	<ul style="list-style-type: none"> <li>• Enhance our brand image in the community and the industry</li> <li>• Continue to improve our environmental performance and reduce our impact on the environment</li> </ul>

Financial Strength – Summary Key Corporate Priorities <i>Grow revenues from new sources and enhance / protect revenues from existing business lines</i>		Assessment ● ▲ X
1.	[REDACTED]	█
2.	[REDACTED]	█
3.	[REDACTED]	█
4.	[REDACTED]	█
5.	2021 – 2025 Electricity Custom Incentive Rate Application – finalize planning, preparations, and submission by end of 2019	●
6.	[REDACTED]	█
7.	Maximize CDM GWh results to achieve 2020 financial incentives	X
8.	[REDACTED]	█

Legend: ● Tracking to plan ▲ Tracking behind plan X Action required

<b>Customer Value – Summary Key Corporate Priorities</b> <i>Assist customers in managing their energy consumption and electricity costs; deliver on customer expectations for service quality and responsiveness; and maintain overall system reliability</i>		<b>Assessment</b> ● ▲ ✕
1.	Continue to deliver a range of CDM programs that are customer-centric, cost effective and generate strong GWh results, including a. Residential Programs including Hydro Ottawa's app b. Commercial Programs including Small Business Lighting and building retrofit	<div>X</div> <div>X</div>
2.	Maintain or enhance our best in class reliability metrics	●
3.	Continue implementation of Customer Experience Roadmap key deliverables including using data to drive decisions impacting customers	●
4.	Actively pursue and participate in energy innovation projects	●
5.	Smart Grid – continue implementation of the foundational grid transformation and modernization projects [REDACTED] and further leverage new SCADA system	▲
6.	Continue our improvements in maintenance and capital execution – emphasis on workforce scheduling and contractor management; complete all budgeted programs / plans on time and within budget	●

Legend: ● Tracking to plan ▲ Tracking behind plan ✕ Action required

Organizational Effectiveness – Summary Key Corporate Priorities <i>Continue to enhance operational performance and productivity; maintain leading health and safety record; and enhance organizational and employee capability</i>		Assessment ●▲×
1.	[REDACTED]	■
2.	[REDACTED]	■
3.	[REDACTED]	■
4.	Facilities Renewal Program – complete the design/build of the administration building and the east and south operations centres, operational integration and migration, change management and employee engagement, regulatory case preparation and property disposition	▲
5.	Union Management Relations – manage outcome of application for certification by SEP for representation at HOL: [REDACTED]	●

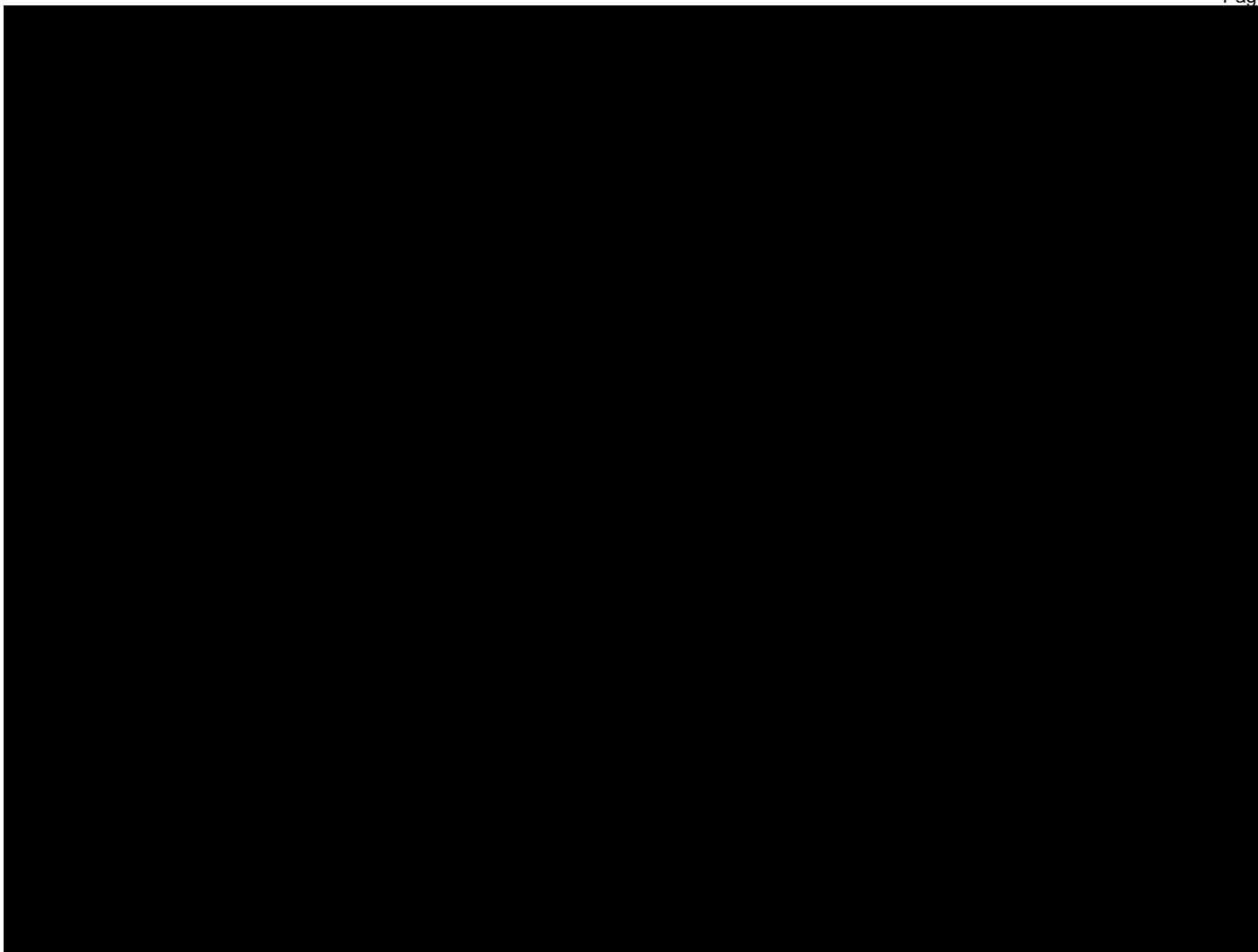
Legend: ● Tracking to plan ▲ Tracking behind plan × Action required

Corporate Citizenship – Summary Key Corporate Priorities <i>Enhance our brand image in the community and the industry; improve our environmental performance and reduce our impact on the environment</i>		Assessment ● ▲ ✕
1.	[REDACTED]	■
2.	[REDACTED]	■
3.	[REDACTED]	■
4.	[REDACTED]	■
5.	[REDACTED]	■
6.	[REDACTED]	■



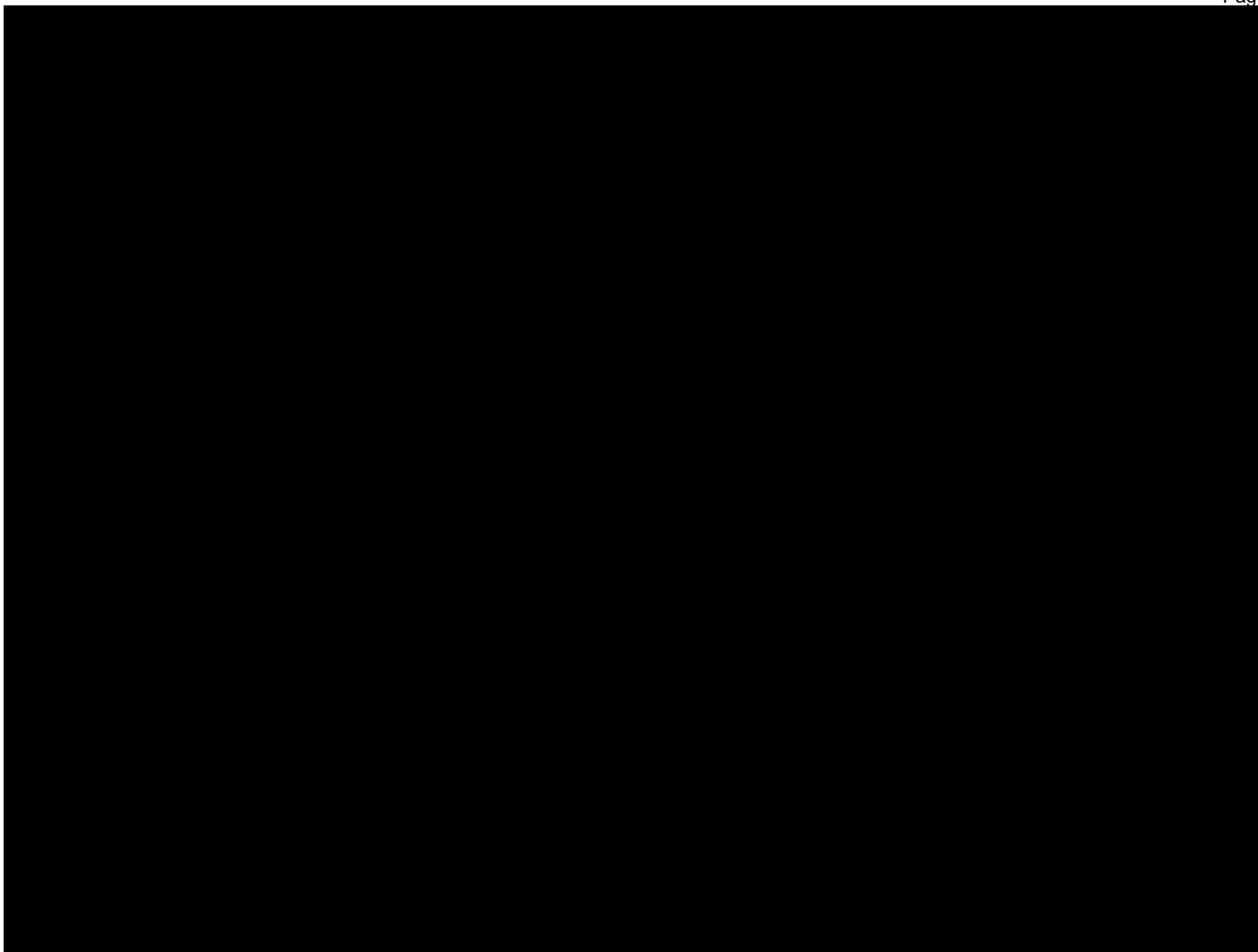


## Section 2 – Enterprise Risk Management (ERM) Assessment

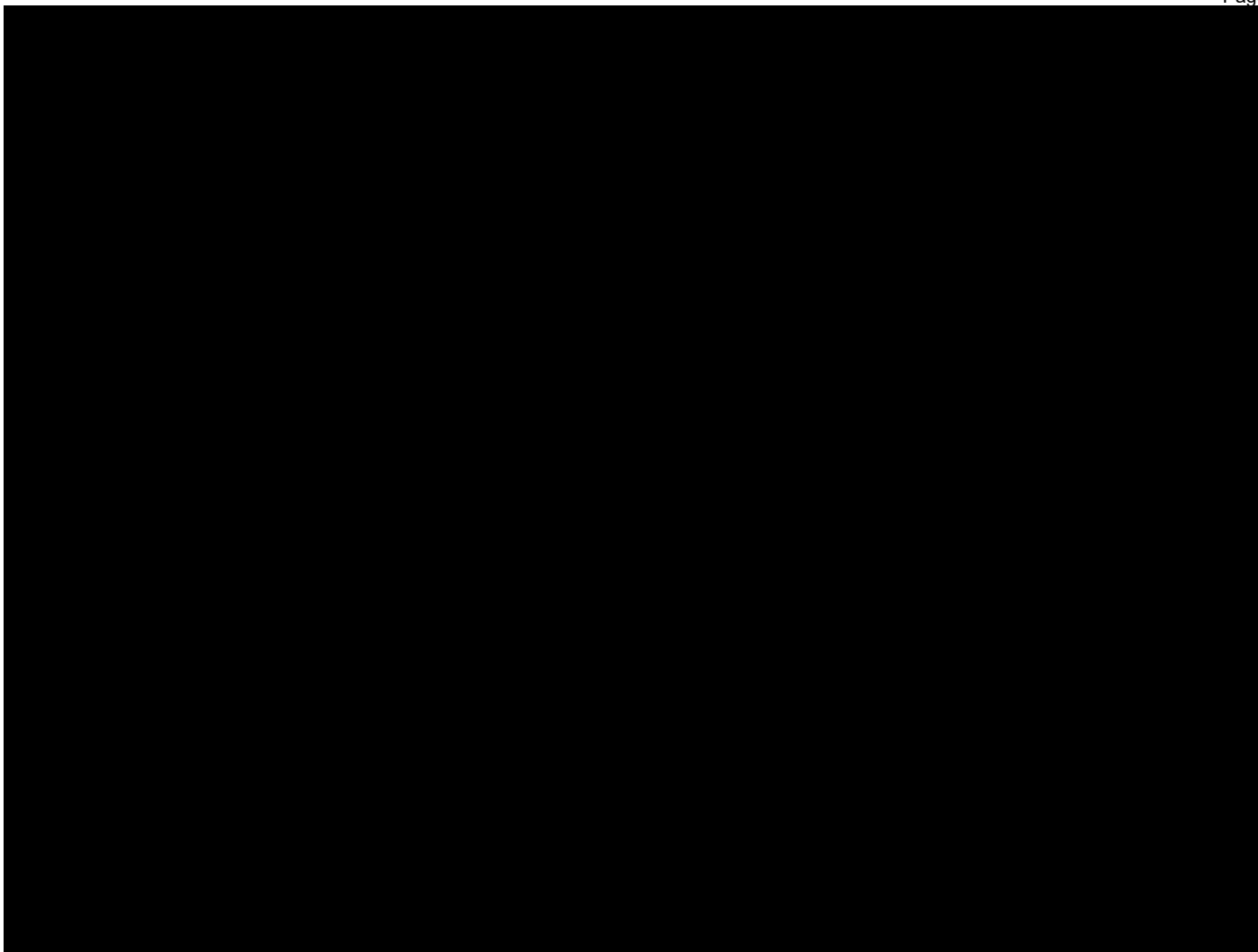


HYDRO OTTAWA LIMITED  
2019 - SECOND QUARTER - ENTERPRISE RISK MANAGEMENT OUTLOOK

FOCUS AREA / Risks	Q2 - 2019	Outlook for 2019	Long Term Outlook (2-5 years)	Watch Areas
<b>FINANCIAL STRENGTH</b>				
Stagnant or Declining Revenue	●	●	▲	The Ministry of Energy announced that hydro rate increases will be held to inflation. Rate-setting plans for the 2021-2025 rate cycle may need to be considered in this light. Ongoing uncertainty about the provincial government's policy direction may warrant a cautious medium-term outlook.
Declining Profitability	●	▲	▲	The Province's decision to centralize CDM programs at the IESO may have some impact on 2019 profitability if funding for winding-down is not in keeping with expectations. The 2-to5-year outlook is cautious as there is uncertainty about the policy / regulatory measures the Ontario government will enforce in reducing electricity bills by 12%.
Declining Financial Strength	●	▲	▲	Debt levels are expected to reach 66% of capital by the end of 2019, stemming from capital commitments in the 2016-2020 rate application. Capital planning for the 2021-25 rate cycle may need to be inflected to enable a return to the regulated, deemed capital structure (i.e. 60/40).
Unexpected Financial Loss	●	●	●	
<b>CUSTOMER VALUE</b>				
Declining Service Delivery	●	●	●	
Declining Customer Loyalty	●	▲	▲	The Province's March 2019 decision to centralize CDM programs at the IESO could adversely affect Hydro Ottawa's credibility and standing as a partner in conservation service offerings.
Declining Customer Satisfaction	●	●	▲	New regulations for the mandatory reporting of privacy breaches under PIPEDA came into effect late in 2018. More complexity likely in the secure management of customer information, especially if Canada adopts elements of GDPR.
<b>ORGANIZATIONAL EFFECTIVENESS</b>				
Declining Operational Effectiveness	●	●	●	
Loss of Operational Capacity	●	●	▲	Proposed OEB action may require adjustments to Hydro Ottawa's corporate governance, including modifications to the composition of the HOL Board. Additional reporting requirements are pending as well.
Declining Employee Morale, Motivation	▲	▲	●	Legal proceedings continue on the Society of Energy Professionals' move to represent HOL's supervisors and professionals.
Unsafe / Unhealthy Business Work Environment	●	●	●	
<b>CORPORATE CITIZENSHIP</b>				
Loss of Credibility within the Community and Industry	●	●	●	Electricity has receded somewhat as a political factor in Ontario. It is possible, however, that the provincial Government may continue to press its policy priorities for the sector (e.g. lower rates) through regulatory and other directive measures.
Erosion of Shareholder Value	●	●	●	

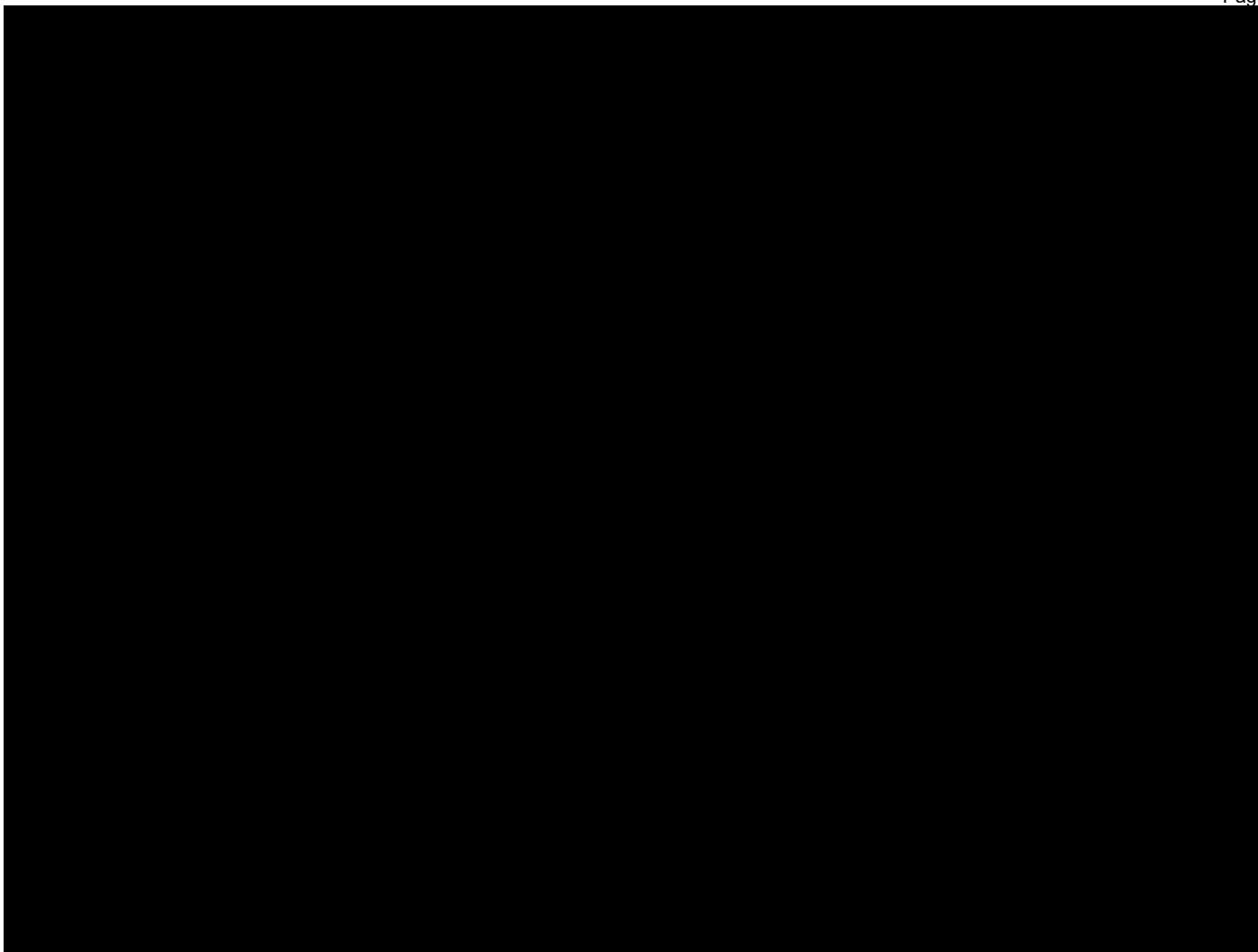


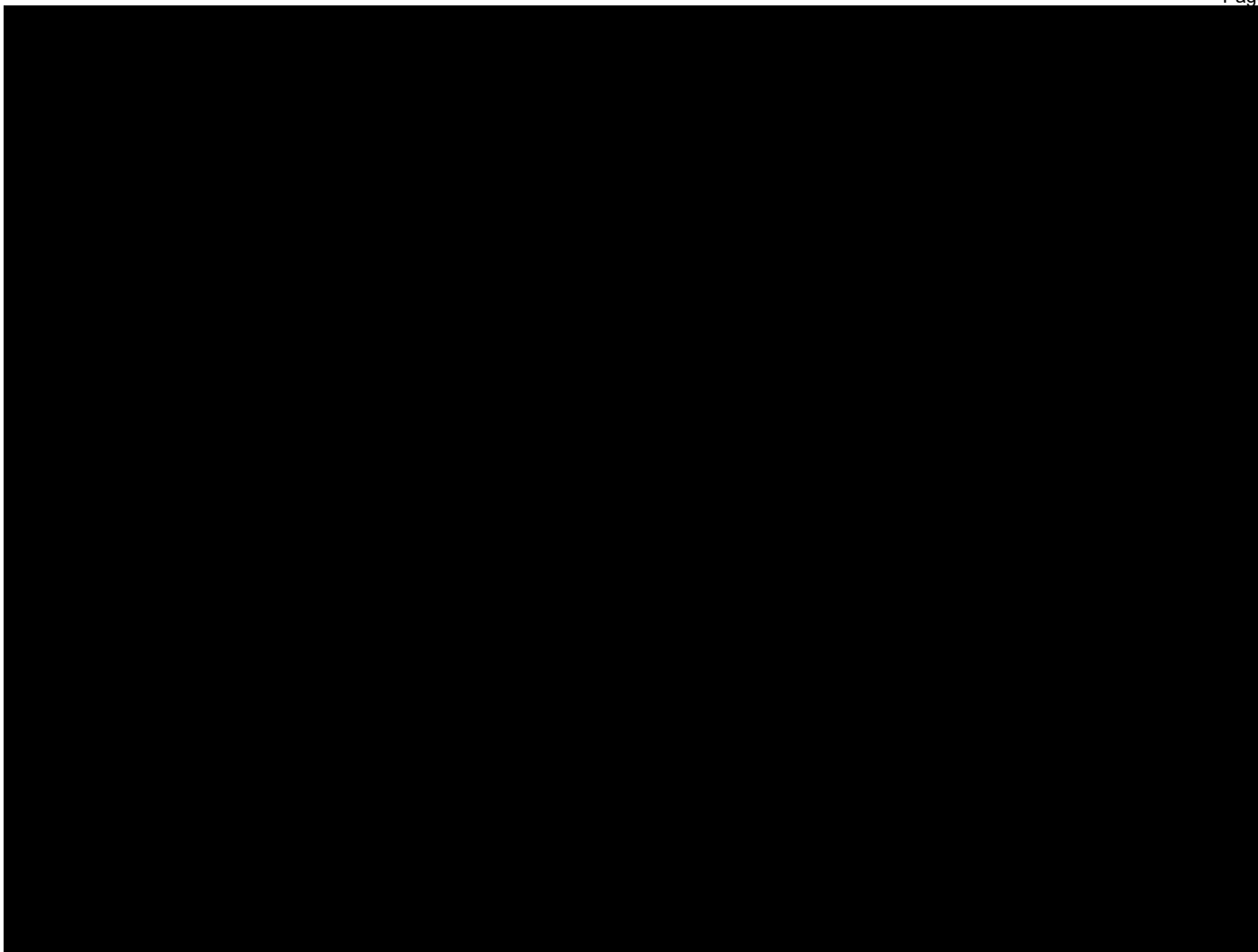


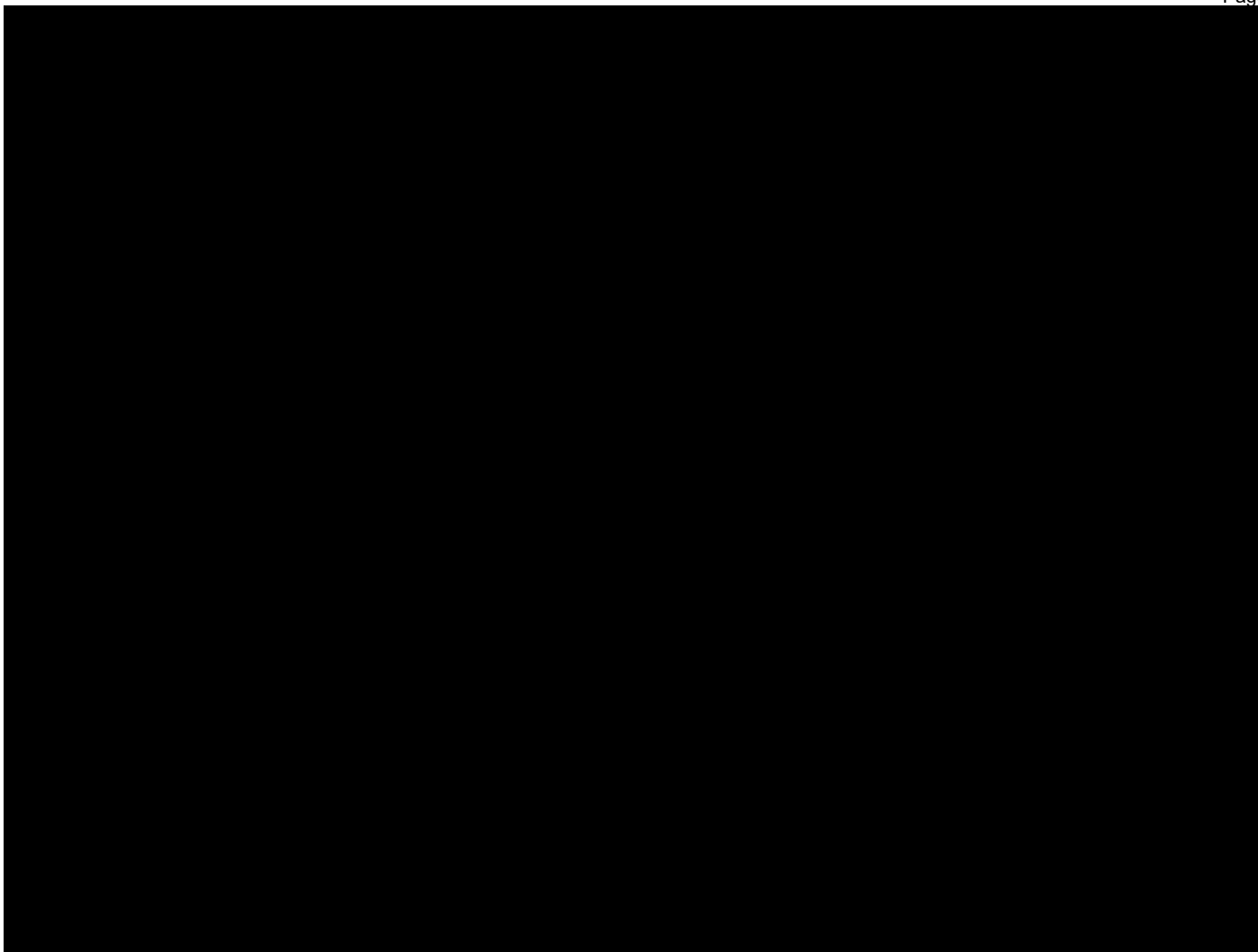


## Q2-2019 HOL Financial Results trended behind budget...

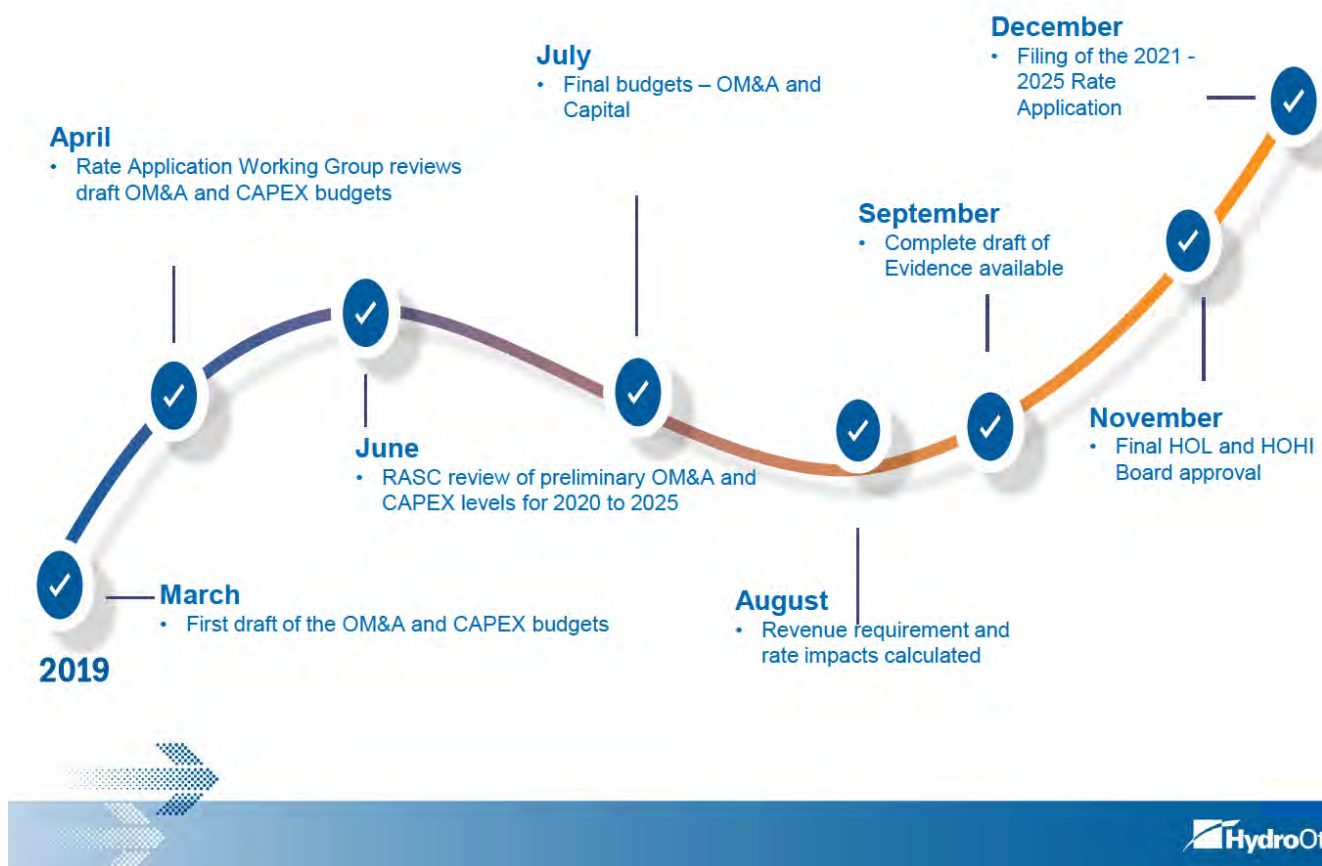
- Q2 missed budget by \$1.5M due to increased environmental remediation costs, reduced capital allocations, and decreased distribution revenue
- YTD net income of \$15.9M below budget by \$0.4M or 3%;
  - Revenues of \$103.6M below budget by \$0.4M (0%)
  - Expenses of \$50.8M exceeded budget by \$0.8M (2%)
  - Resulting EBITDA below budget by \$1.2M or 2%
- Forecast net income to be on budget
- Net capital investments of \$58.3M exceeded budget by \$8.6M due to timing of Facilities spending budgeted in Q4 2018 but incurred in Q1 2019
- Forecast capital investments of \$113.2M, below annual budget by \$5.3M
- Net cash inflows from operating activities of \$48.0M below cash outflows from acquisition of capital assets of \$78.6M by \$30.6M







## Preparations for the 2021-2025 Custom Incentive Rate Application continued...



## Q2 customer satisfaction results slightly below target, and reliability exceeded expectations with a positive outlook for year end...

### • SATISFACTION

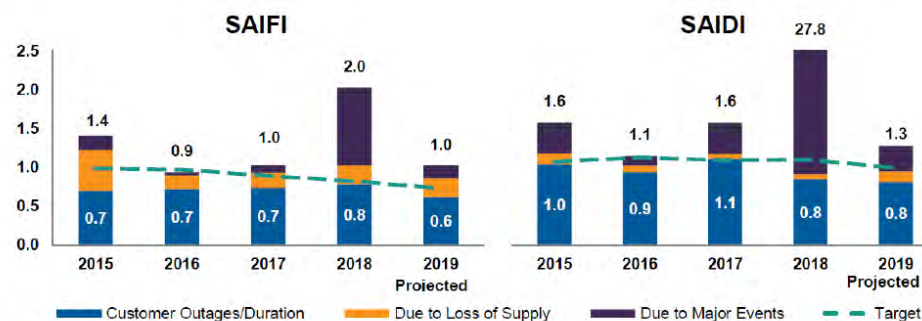
- Call center customer satisfaction was 86% YTD 2019 (target is 90%)
- First call resolution was 87% YTD 2019 (target 85%)
- Brand sentiment (media coverage) was 100% YTD 2019 (target 97%)

### • VALUE

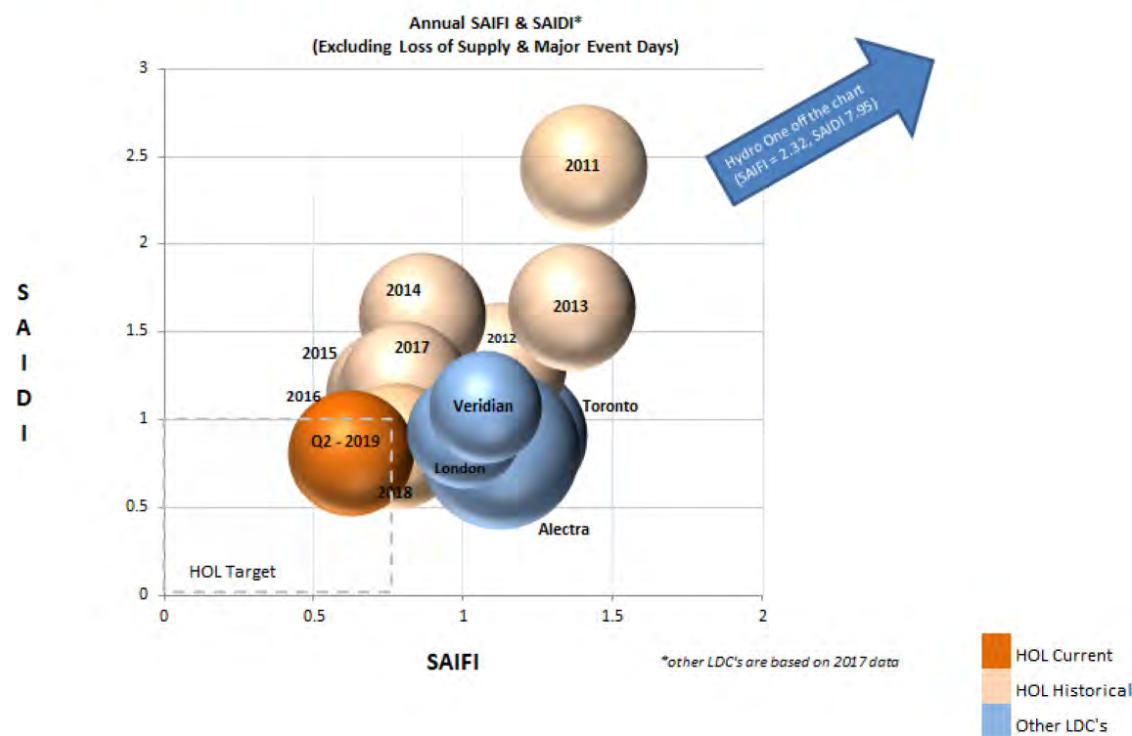
- My Account registrations increased by 2%; 193,141 (57%) accounts
- Online Billing registration increased by 3%; 159,308 (48%) accounts
- Autopay registrations increased by 2%; 66,040 (20%) accounts

### • RELIABILITY

- Reliability performance exceeded expectations in June and YTD results support a favorable outlook to Year End for both SAIFI (Average Frequency) and SAIDI (Average Duration).
- Most cause codes were below expected levels at the end of Q2 with the exception of "Tree Contacts" as a result of a June 29th event where fallen trees along Huntley Rd. impacted 10,400 customers in the Munster-Richmond-Stittsville area supplied by South March TS and Richmond North DS.
- Continued focus will be required during the second half of 2019 to ensure positive outlook is maintained.



## We continued to compare favourably to our peers and to previous performance...



## We assisted customers in managing their energy consumption and electricity costs...

### Energy Conservation Programs

- Significant changes released by the Provincial Government surrounding CDM  
 Q2 - Home Energy Report (HER) discontinued for customers and MOBILE app remains active for core information
  - Sentiment levels  
 61% **Sad** – 5% **Neutral** – 35% **Happy**
- 71 Commercial Refrigeration projects completed in Q2 (representing 378,117 kWh)
- 166 Events showcased



Conservation Programs

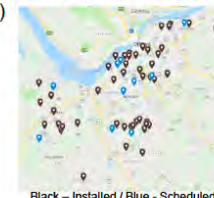
### Electricity Financial Support Programs

- Continued promotion of financial assistance programs such as LEAP, OESP, EMPP and Affordability Trust
- Ontario Electricity Support Program (OESP) – 26,808 recipients (~ 8% increase from last quarter)
- Equal Monthly Payment (EMPP) – 19,386 accounts registered



### Energy Innovation Projects

- EV Charger Residential Pilot Program – 49 of 100 chargers installed (just under 50%)



- EV Readiness Assessments – tracking at a 90% win rate with 40 assessments issued to multi-residential and condo groups across Ottawa/Gatineau area
  - Highlighted win for 3 sites with NRC (National Research Council) Montreal Rd. Campus, Sussex Campus, Uplands/Alert Campus
- EV Investments with NRCan
  - ZEVI (Zero Emission Vehicle Infrastructure Program) – includes 26 chargers for City of Ottawa
  - ZEV Awareness Initiative – targeting Commercial & Key Account customers in Ottawa
- Partnerships secured with EVSE (Electric Vehicle Supply Equipment) vendors including Flo, Chargepoint, SparkEV

## We took steps to improve service quality and responsiveness...

### Continued evolution through our Customer Experience Roadmap Initiatives



#### NEW EDUCATION CHANNEL

Launch of Think Energy Podcasts in June 2019 to educate and showcase the fast-changing world of Energy

#### KEY ACCOUNT SYMPOSIUM

71 attendees

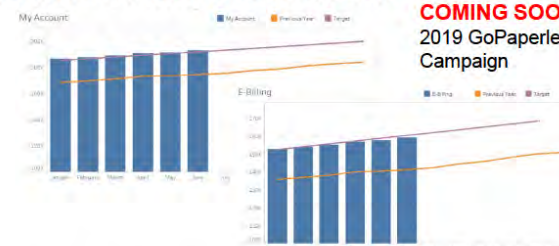
56% active engagement in live polls

55% response rate to evaluation forms

- Feedback provided is being used for Fall Symposium September 26



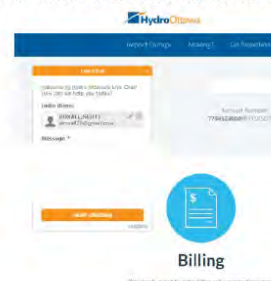
#### CONTINUED ACTIVITY FOR E-BILLING



**COMING SOON!**  
 2019 GoPaperless Campaign

#### NEW COMMUNICATION CHANNEL

Soft Launch of the Web Chat feature additional 1:1 real-time connection with Customer Service



Monthly Average # of chats = 360

Handle time ↑ to 10 min

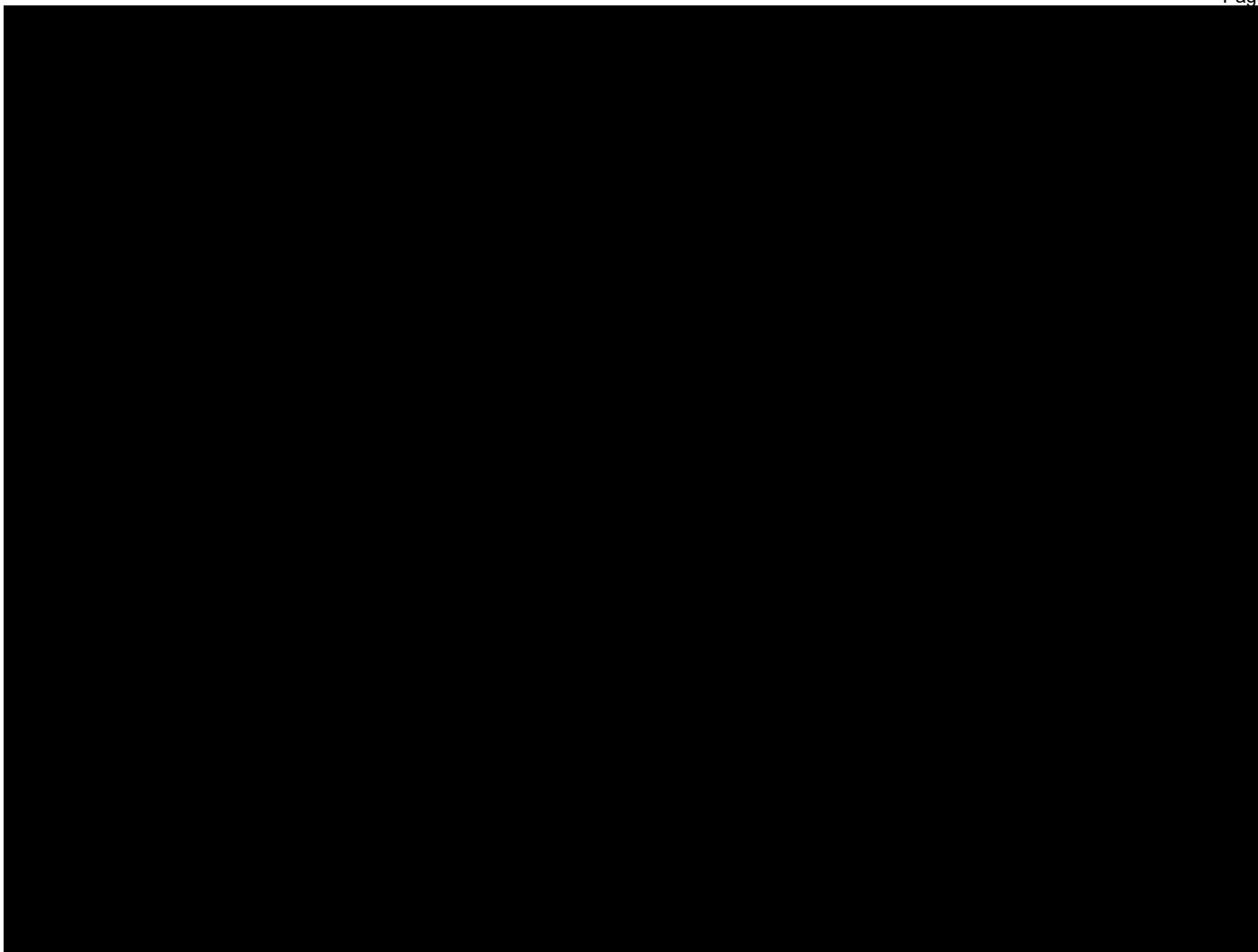
HOL chat bot to be introduced to reduce live handle time once chat feature is optimized

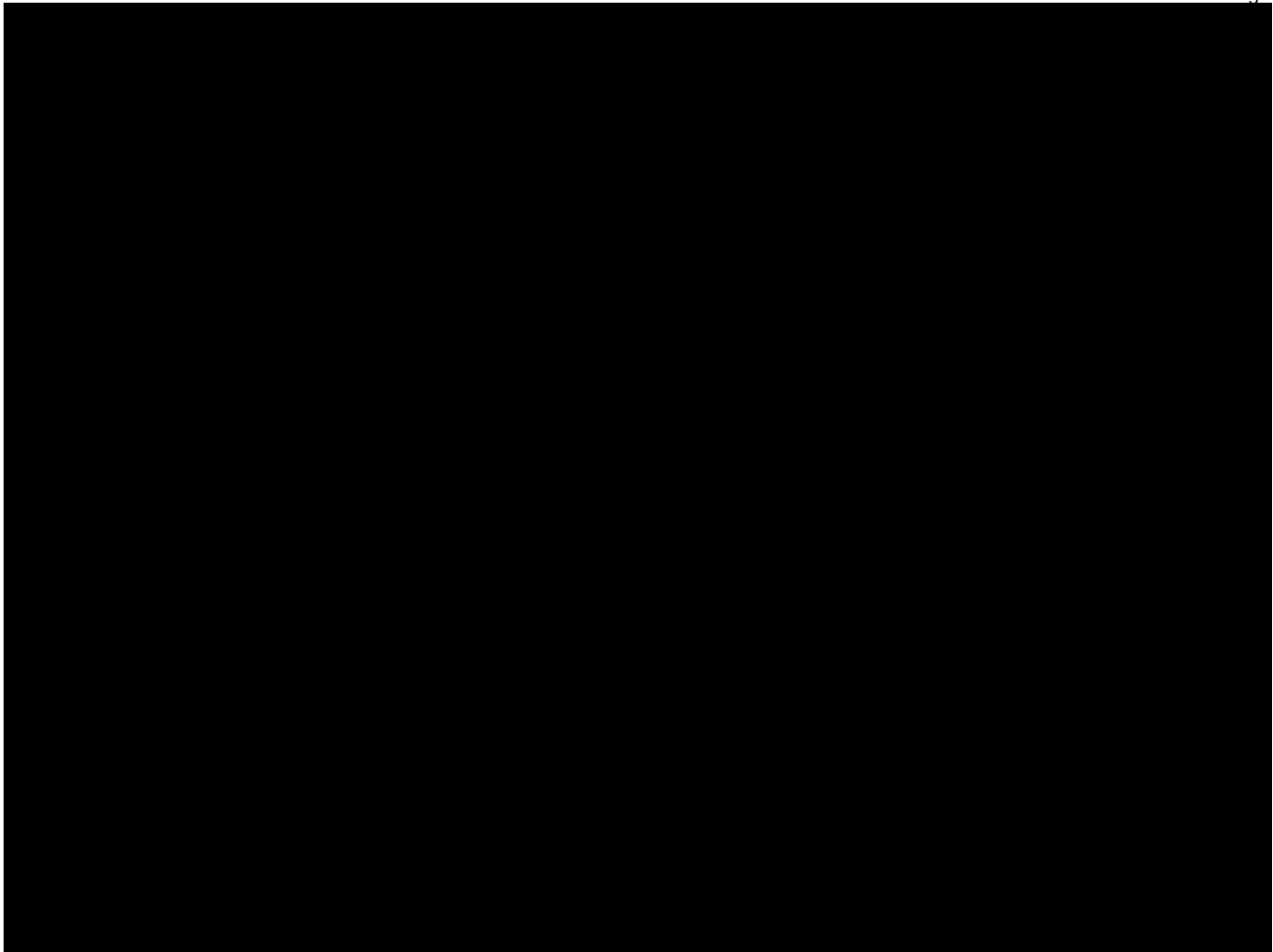
## And we invested in our distribution system...

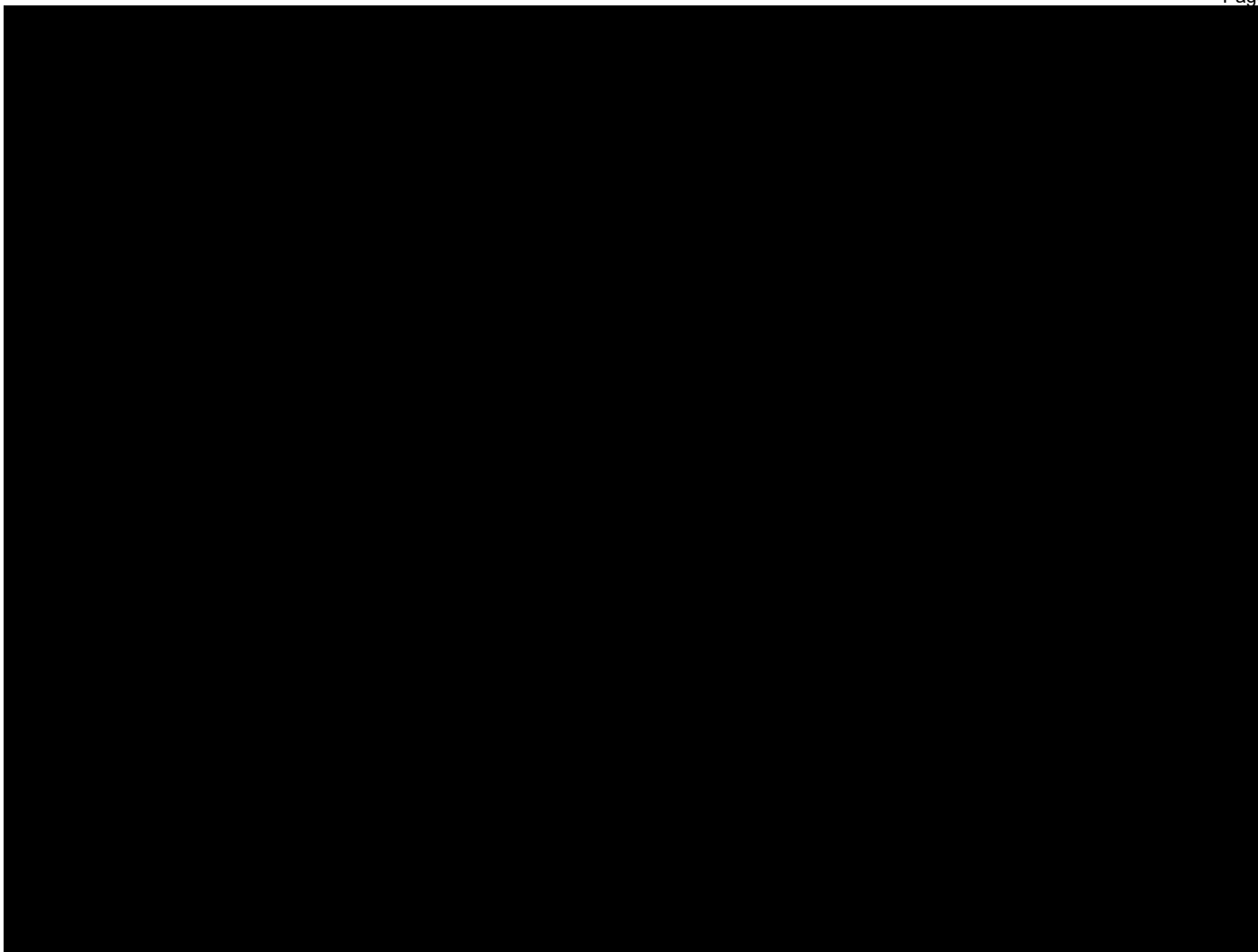


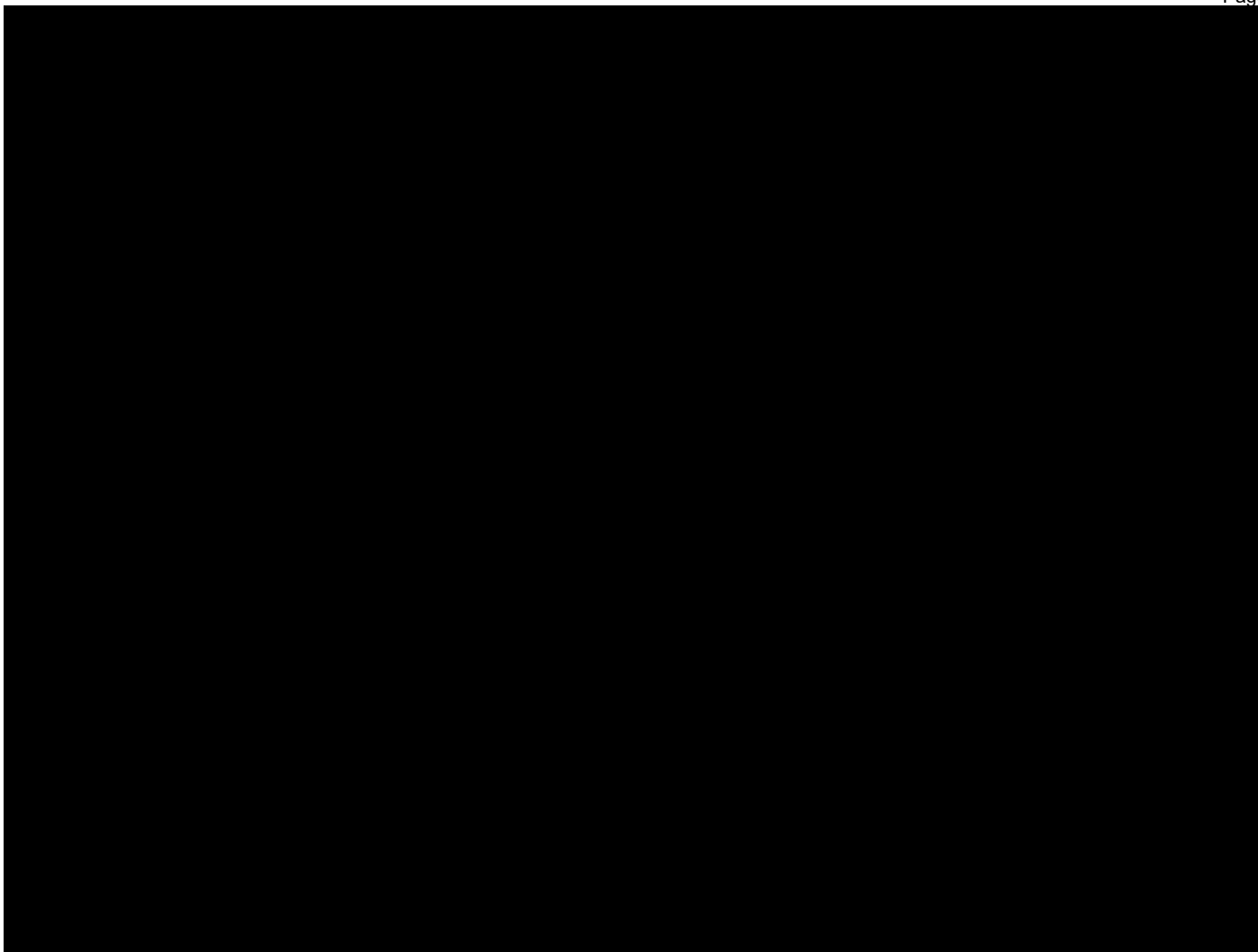
### OVERALL DISTRIBUTION SYSTEM RELIABILITY

- **Smart Grid - implementation of foundational grid transformation and modernization projects**
  - **Telecom Dark Fibre Network** – Fibre construction continued to progress. There is a total of 92km that is in service as of June. An additional 32km is forecasted for the rest of the year. The build out has been slower than anticipated due to crowded poles, a harsh winter and extended civil work. Budget consequently a constraint with the possibility of a shortfall for 2019.
- **Continued improvements in maintenance and capital program execution to enhance reliability of our distribution system**
  - **Distribution System Renewal and Service (Sustainment Capital Program)**
    - **System Renewal and Service:** Overall YTD Q2 spending exceeded budget by \$1.12M due mainly to overspends in Communications, Infrastructure and Pole Replacements.
    - **Emergency Renewal :** Overall Q2 YTD spending exceeded budget by \$924k due primarily to overspend in Switches, Transformers and Cable (increased cable faults due to the number of freeze / thaw cycles).
  - **Distribution System Access (Demand Capital Program)**
    - Q2 spending is \$2.8M below budget with a corresponding reduction in capital contributions, mostly as a result of external scheduling delays. Overall capital contributions percentage is slightly higher than budgeted.
  - **Distribution Testing, Inspection and Maintenance Programs**
    - Execution of Testing, Inspection, and Maintenance programs remains on schedule with overall programs expected to be delivered on time and on budget.







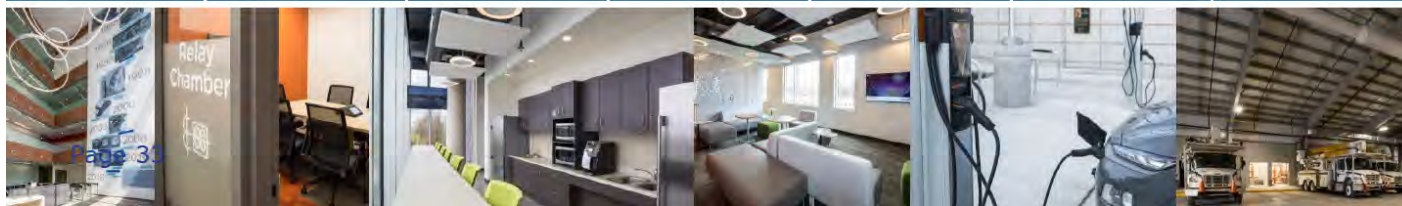


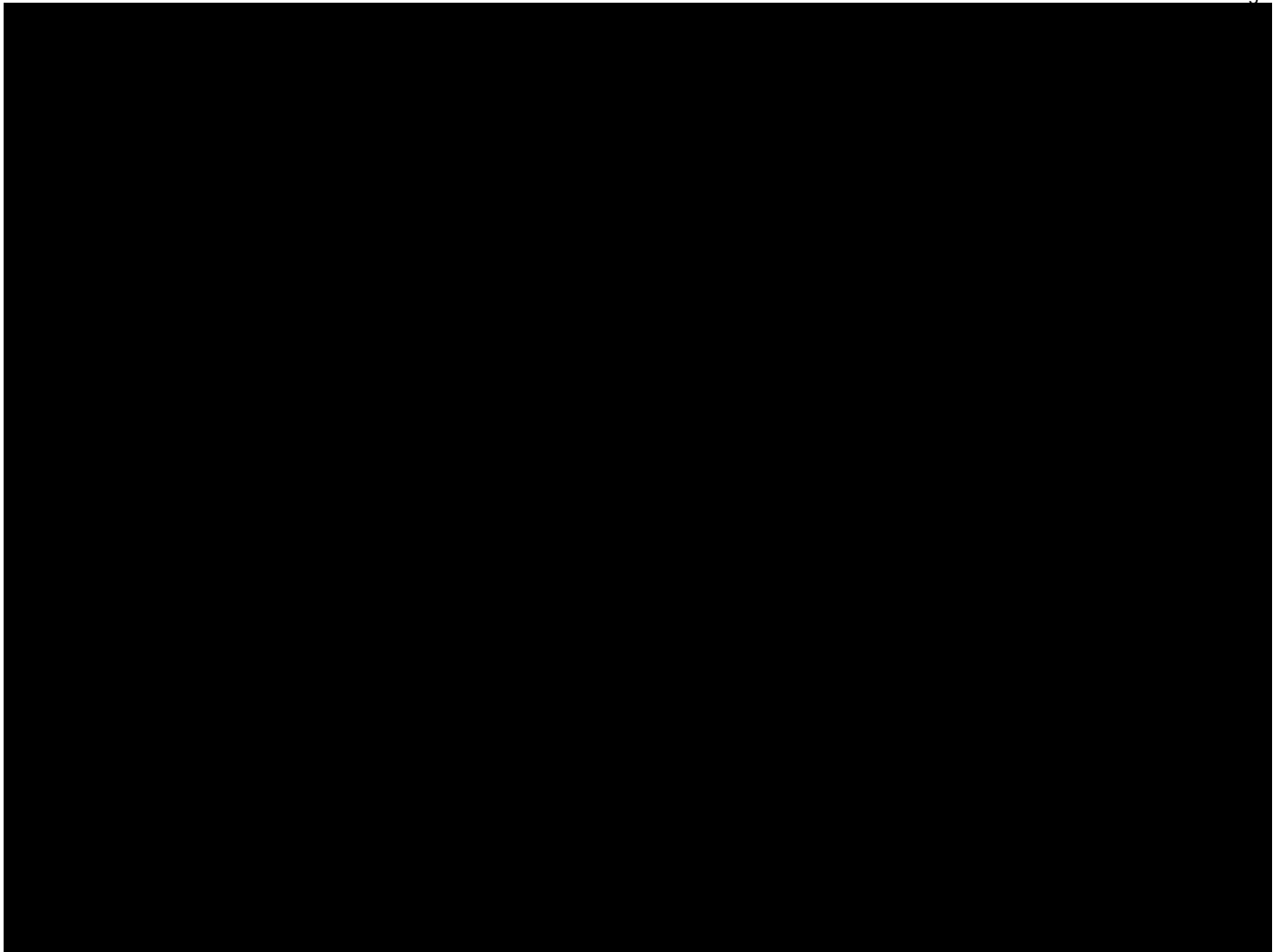
## Including successful move to our new facilities...

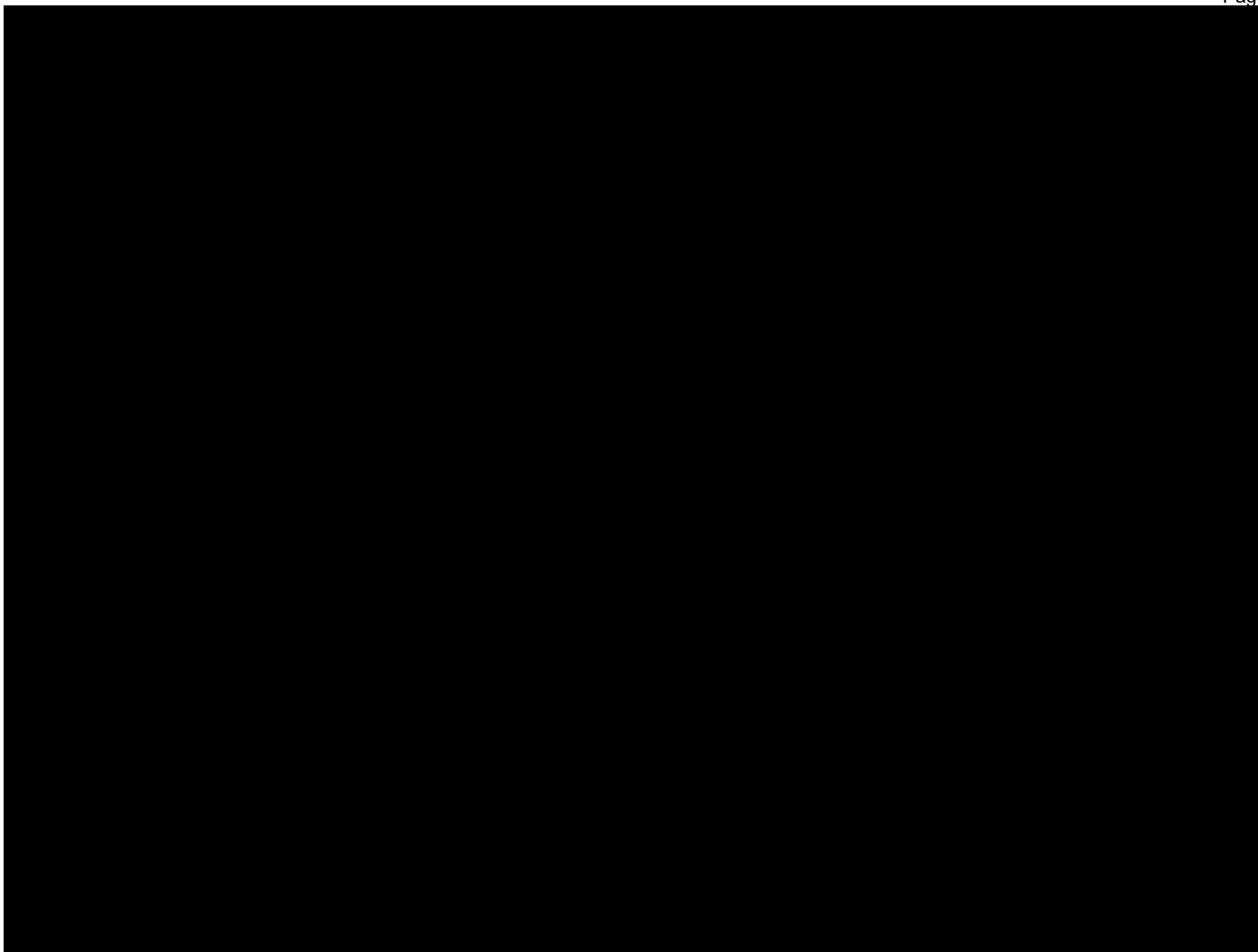


## And embracing new and more efficient ways of working...

Cultural Legacy Integration	Advanced Technology	Sustainability	Health & Wellness	Flexibility & Adaptability	Innovation	Collaboration
<ul style="list-style-type: none"> <li>• Atrium Historical Timeline Wall</li> <li>• Alumni Room</li> <li>• Time Capsule</li> <li>• Meeting Room Naming Convention</li> <li>• Historical Photo Gallery</li> <li>• Accent Colours</li> <li>• Awards Cabinet</li> <li>• Fallen Worker Memorial</li> </ul>	<ul style="list-style-type: none"> <li>• New Data and Control Room</li> <li>• Integrated Technology Plan</li> <li>• Digitization</li> <li>• Laptops and Dual Monitors</li> <li>• Digital and Wayfinding Screens</li> <li>• Live Streaming for Events</li> <li>• Three Layer Security – Perimeter, Building, Critical Assets</li> </ul>	<ul style="list-style-type: none"> <li>• LEED Gold Certified</li> <li>• Paperless Environment</li> <li>• Building Automation</li> <li>• EV Charging</li> <li>• Premium Carpool Parking</li> <li>• Centralized Waste Mgmt. – 4 Streams</li> <li>• Solar Arrays</li> <li>• Solar-Powered Carport</li> </ul>	<ul style="list-style-type: none"> <li>• Fitness Spaces</li> <li>• Healthy, Fresh Cafeteria Menu</li> <li>• Sit-Stand Desks</li> <li>• Ergonomic Task Chairs</li> <li>• Multi-Faith Room</li> <li>• Natural Light</li> <li>• Outdoor Patio</li> <li>• Walking Path</li> <li>• Sunken Garden</li> <li>• Kitchenettes</li> <li>• Covered Bicycle Storage</li> </ul>	<ul style="list-style-type: none"> <li>• Furniture Solutions</li> <li>• Reconfigurable Meeting Rooms</li> <li>• Quiet Rooms</li> <li>• Universal Bathrooms</li> <li>• Efficient Vehicle Flow</li> <li>• Drive-in/Drive-out Garages</li> <li>• Proximity to Highways 416 and 417</li> <li>• Icon Signage</li> </ul>	<ul style="list-style-type: none"> <li>• Sound-Masking</li> <li>• Task-Based Work Spaces</li> <li>• Kitting Bays in Garages</li> <li>• Dedicated PILC Building</li> <li>• Campus-Wide Wi-Fi – Work Anywhere</li> <li>• Wall Mounted Tablets in Garages</li> <li>• Centralized Printing and Supplies</li> </ul>	<ul style="list-style-type: none"> <li>• Multiple Collaboration Spaces, most with Advanced and Interactive Technology</li> <li>• Cafeteria Work Spaces</li> <li>• Divisional Neighbourhood Designs</li> <li>• Multiple Working Meeting Rooms</li> </ul>







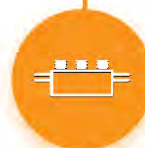


**Section 4 –  
Compliance, Legal Issues and  
Provincial Programs**

## Compliance, Legal Issues and Provincial Programs Q2-2019 update

### LEGISLATIVE AMENDMENTS

- **Bill 87, *Fixing the Hydro Mess Act*** - The legislative assembly passed Bill 87, which will make consequential reforms to Ontario's conservation framework, as well as to the OEB's governance structure. The bill also modifies aspects of rate relief programs under the Fair Hydro Plan.
- The New York legislature passed a bill for which Energy Ottawa and other owners of existing renewable facilities had been advocating for over two years. The bill remedies the disparate treatment of existing renewables under the Renewable Energy Standard. The bill now awaits approval from Governor Cuomo.
- **Workplace Safety and Insurance Board** - changing how premium rates are calculated in September 2019 – effective January 1, 2020. Implementing the North American Industry Classification System (NAICS) used by StatsCan and CRA - moving from 155 rate groups to 34 rate classes. Rates will be based on a combination of: company's risk profile and share of responsibility to maintain the insurance fund; how individual claim history compares to other businesses in the rate class; insurable earnings, claims costs and number of allowed claims over a 6 year period; and a predictability factor - using past performance to predict future outcomes. We are currently investigating potential impacts on Hydro Ottawa.

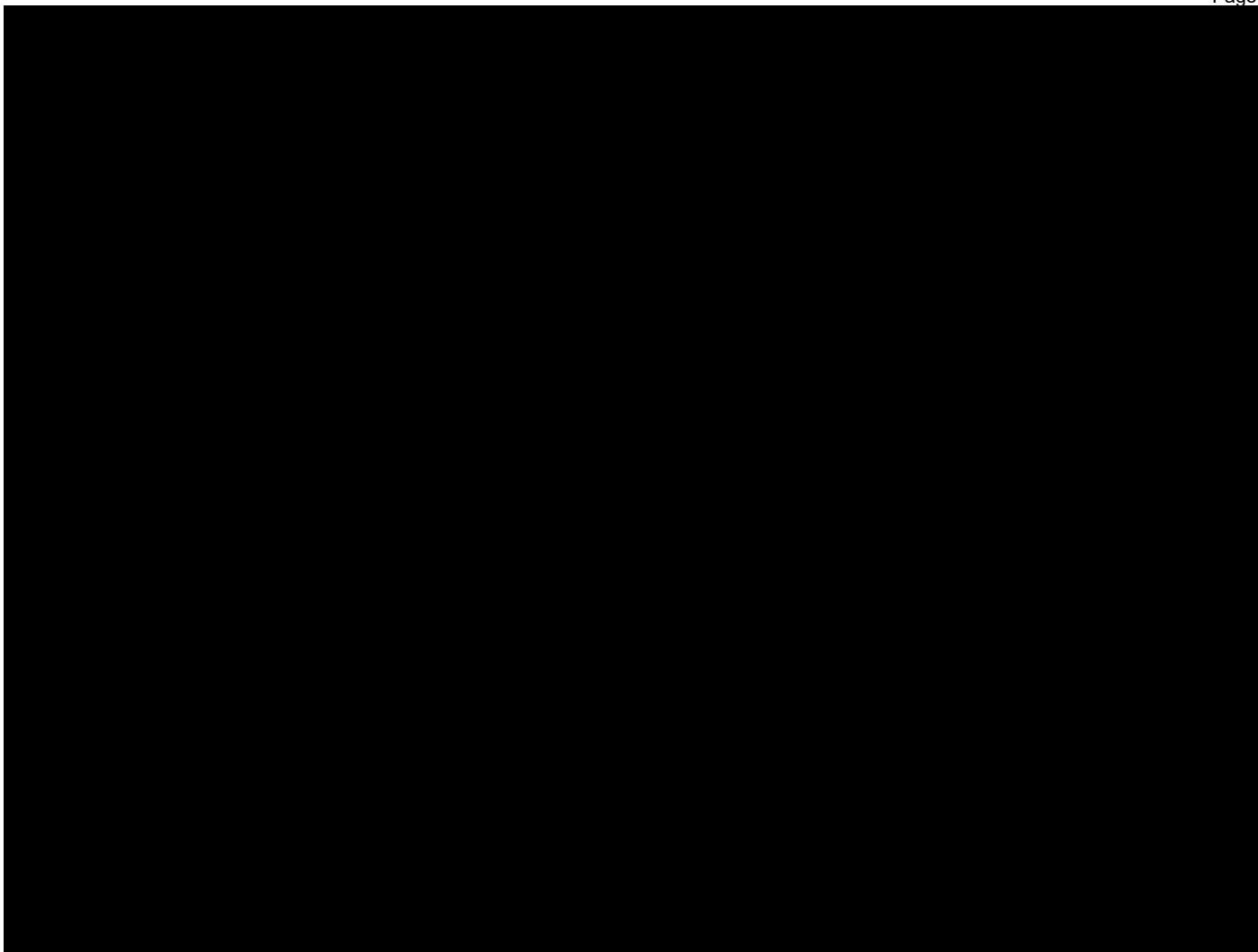


### COMPLIANCE

- In June, the OEB compliance office informed Hydro Ottawa of alleged compliance issues with certain OEB-prescribed Collection Notice timelines and content. The latter inquiry has not concluded and any potential OEB decisions are not expected to be financially material

### PROVINCIAL

- The OEB publicly released its updated three-year business plan, for the years 2019-2022. New initiatives that will be impactful for Hydro Ottawa include development of new reliability measures and reporting requirements for LDCs, updating the LDC Scorecard, reforms to the Affiliate Relationship Code, and review of the OEB's policy on utility mergers.





## Section 5 – Progress Against Plan – Corporate Performance Scorecard

## Financial Strength – Year to Date Results Q2 2019

### Corporate Performance Goals And Priorities

Enterprise Strategic Objective	We will create sustainable growth in our business and our earnings By improving productivity and pursuing business growth opportunities that leverage our strengths – our core capabilities, our assets and our people	
Enterprise Strategic Outcome	Growth in shareholder value	
2019 Corporate Performance Goals and Supporting Priorities		Assessment ● ▲ ✕
1. Grow revenues from new sources		
b. Distribution		▲
i. Continue to approach other LDCs in Ontario regarding potential acquisition/mergers/partnerships		●
ii. Continue to expand our distribution system through acquisition of customer-owned assets (e.g. Ottawa International Airport, DND Uplands)		
d. Other ancillary services that leverage Hydro Ottawa's brand and competitive advantage in the industry		●
i. Electrical service and construction offerings - emergency repair and replacement of customer-owned distribution assets, meter services for other entities such as OPG, distribution sub-station services to other LDCs and private businesses, forestry services		
ii. Regional Training		●
aa. Continue development and implementation of all levels of Training Delivery Agent Status Powerline Technician training and certification with Algonquin College		
bb. Continue to market and enhance training services to other LDCs / contractors		▲

## Financial Strength – Year to Date Results Q2 2019

### Corporate Performance Goals And Priorities

Enterprise Strategic Objective	We will create sustainable growth in our business and our earnings <i>By improving productivity and pursuing business growth opportunities that leverage our strengths – our core capabilities, our assets and our people</i>	
Enterprise Strategic Outcome	Growth in shareholder value	
2019 Corporate Performance Goals and Supporting Priorities		Assessment ● ▲ ✕
2. Enhance / protect revenues from existing business lines		
b. 2021-2025 Electricity Custom Incentive Rate Application – finalize planning, preparations, and submission by end of 2019		●

## Financial Strength – Year to Date Results Q2 2019

### Corporate Performance Measures And Targets

Enterprise Strategic Objective	We will create sustainable growth in our business and our earnings <i>By improving productivity and pursuing business growth opportunities that leverage our strengths, our core capabilities, our assets and our people</i>								
Enterprise Strategic Outcome	Growth in shareholder value								
2019 Corporate Performance Measures	2014A CGAAP	2015A IFRS	2016A IFRS	2017A IFRS	2018A IFRS	2019T IFRS	Q2 YTD Target IFRS	Q2 YTD Actual IFRS	Q2 YTD Assessment ▲▼

## HOL Financial Strength – Year to Date Results Q2 2019

### Corporate Performance Measures And Targets

Enterprise Strategic Objective	We will create sustainable growth in our business and our earnings By improving productivity and pursuing business growth opportunities that leverage our strengths, our core capabilities, our assets and our people								
Enterprise Strategic Outcome	Growth in shareholder value								
2019 HOL Performance Measures	2014A CGAAP	2015A IFRS	2016A IFRS	2017A IFRS	2018A IFRS	2019T IFRS	Q2 YTD Target IFRS	Q2 YTD Actual IFRS	Q2 YTD Assessment ●●●
Net Income	\$27.9M	\$35.5M	\$34.3M	\$36.5M	\$37.2M	\$34.9M	\$16.4M	\$15.9M	X
Revenue (excl CDM) <sup>1</sup>	\$168.5M	\$172.8M	\$182.0M	\$187.1M	\$199.2M	\$208.7M	\$104.0M	\$103.6M	X
OM&A - Net (excl CDM) <sup>1</sup>	\$86.0M	\$84.5M	\$87.9M	\$87.5M	\$95.1M	\$96.4M	\$50.0M	\$50.8M	X
Return on Equity	10.1%	12.1%	11.0%	11.1%	10.7%	9.4%	9.4%	9.4%	●
Cash Flow from Operations <sup>2</sup>	\$94.3M	\$69.0M	\$78.0M	\$78.3M	\$114.3M	\$110.3M	\$50.8M	\$48.0M	X
CAPEX									
System Renewal and Service (excl Plant Failure) <sup>3</sup>	\$74.0M	\$54.5M	\$57.3M	N/A	N/A	N/A	N/A	N/A	N/A
Plant Failure <sup>3</sup>	N/A	N/A	\$7.8M	N/A	N/A	N/A	N/A	N/A	N/A
General (incl Facilities Renewal Program) <sup>3</sup>	\$15.7M	\$10.2M	\$15.7M	N/A	N/A	N/A	N/A	N/A	N/A
Cumulative Capital Additions									
General Plant	N/A	N/A	N/A	\$31.0M	\$37.9M	\$39.8M	\$39.8M	\$44.1M	●
System Renewal & Service	N/A	N/A	N/A	\$116.0M	\$186.4M	\$220.0M	\$199.4M	\$200.2M	●
Labour Allocation to CAPEX	60%	61%	62%	60%	58%	60%	60%	57%	X
Debt to Capitalization Ratio <sup>4</sup>	N/A	N/A	N/A	N/A	N/A	65%	65.2%	66.5%	X
CDM – Cumulative GWh reduction <sup>5</sup>	415 GWh	78 GWh	90 GWh	276 GWh	324 GWh	375 GWh	N/A	N/A	N/A

<sup>1</sup> In 2016, these measures were modified to exclude CDM

<sup>2</sup> In 2016 & 2017, Cash flow from Operations on financial statement includes reclassifications of deferred revenue and customer deposits, the actual results are based on the previous reporting method to compare to the target, starting 2018, result was aligned with financial statement reporting

<sup>3</sup> In 2016, Plant Failure was added as a separate measure and excluded from the overall CAPEX measure

<sup>4</sup> New measure added in 2019

<sup>5</sup> 2015 and 2016 are annual reductions not cumulative. 2015, 2016, and 2017 results restated based on IESO confirmed results received in subsequent years. Announced on March 2019, LDCs will no longer receive incentive payments for achieving assigned targets for electricity savings

## Customer Value – Year to Date Results Q2-2019

### Corporate Performance Goals and Priorities

<b>Enterprise Strategic Objective</b>	<b>We will deliver value across the entire customer experience</b> <i>By providing reliable, responsive and innovative services at competitive rates</i>	
<b>Enterprise Strategic Outcome</b>	<b>Customer loyalty</b>	
<b>2019 Corporate Performance Goals and Supporting Priorities</b>		<b>Assessment</b> ●●▲X
<b>3. Assist customers in managing their energy consumption and electricity costs</b>		
<b>a. CDM</b> – Continue to deliver a range of CDM programs that are customer-centric, cost effective and generate strong GWh results, e.g.		<b>X</b>
i. Residential Programs including Hydro Ottawa's app		
ii. Commercial Programs including Small Business Lighting and building retrofit		<b>X</b>
<b>b. Electricity Support Programs</b> – Continue to manage the provincial program(s) that provide ongoing financial assistance to qualifying low-income electricity consumers including		●
i. Ontario Electricity Support Program (OESP)		●
ii. Low-Income Energy Assistance Program (LEAP)		●
iii. Affordability Trust		
<b>c. Customer Education Program</b> – Continue to increase understanding of the industry and Hydro Ottawa's role and achievements within it; demystify and educate by leveraging multiple modes (digital and social media, video, open houses, workshops, etc.) and multiple channels (local media, Councillors, subject matter experts, executive and senior management)		●
<b>d. Energy Innovation Projects</b> – Actively pursue and participate in innovation projects to identify new energy saving product/service offerings for our customers		●
i. Great Demand Response Project (IESO Smart Grid funding in partnership with industry and academia, e.g. Ottawa and Gloucester Community Housing, Ottawa U, Panasonic, Tabouchi)		●
ii. EV Support Equipment Manifold (EVSEM) - charging infrastructure pilot project for constrained urban environments (pending funding by NRCAN)		●
iii. EV Innovation Development/Deployment (EVID) – working with local taxi company to facilitate the charging infrastructure for an electric taxi fleet (pending funding from NRCAN)		●
iv. Distributed Energy Resources – continue to monitor and engage on opportunities		●

## Customer Value – Year to Date Results Q2-2019

### Corporate Performance Goals and Priorities

<b>Enterprise Strategic Objective</b>	<b>We will deliver value across the entire customer experience</b> <i>By providing reliable, responsive and innovative services at competitive rates</i>	
<b>Enterprise Strategic Outcome</b>	<b>Customer loyalty</b>	
<b>2019 Corporate Performance Goals and Supporting Priorities</b>		<b>Assessment</b> ● ▲ X
<b>4. Deliver on customer expectations for service quality and responsiveness</b>		
<b>a. Improve Customer Service</b> – Implement the ‘whole of company’ Customer Experience (Cx) Strategy and Roadmap with a focus on modernization, customer communications and customer self-serve:		▲
i. <b>Change Management Plan</b> – Implement the multi-year change management plan to align people and organization to the Cx Strategy and Roadmap, with a focus on increasing organization-wide awareness, support and alignment for a customer-centric culture consistent with the Organizational Culture Strategy		●
ii. <b>New Service / Product Offerings</b> – Work with existing customers to define and tailor product/service offerings, e.g. EV and energy storage solutions		●
iii. <b>Regulatory</b> : e.g. provincial programs, migration to fixed rate and C1 class customers to HOEP		●
iv. <b>Customer Touchpoint Improvements</b> –		
aa. Outage communications – Incorporate technology solutions to support outbound outage reporting across multiple channels / app & SMS		●
bb. Annual Go Paperless campaign		
cc. Hydro Ottawa app engagement campaign		●
v. <b>Understanding Customers</b> – Implement systems and processes to support a 1:1 conversation with customers		
aa. <b>Customer Preference Dashboard</b> (database) – continue development of interface to centralize customer data points to support targeted and personalized communications		●
bb. <b>Marketing Automation Platform</b> – extend solution to automate and provide insightful analytics of marketing campaigns and communications for HOL		●
cc. <b>Email Management Platform</b> – Implement email management solution to streamline routing of customer communications		●
dd. <b>Strategic Account Management Plan</b> – Continue relationship building with, and develop of product offerings for, key accounts, developers and contractors; capture market intelligence, improve internal collaboration, increase customer value and create trusted advisor role		●
ee. <b>Business Intelligence</b> – Leverage Tableau Reporting tool to allow us to better target customer segments for different program / service offerings		●
vi. <b>Technology and Process Enhancements</b>		
aa. <b>Website</b> – Upgrade external websites		●
bb. <b>Enterprise Communications Platform</b> - Leverage platform functionality for multi-channel communication (voice, text, email, chat, etc.)		●

## Customer Value – Year to Date Results Q2-2019

### Corporate Performance Goals and Priorities

Enterprise Strategic Objective	We will deliver value across the entire customer experience <i>By providing reliable, responsive and innovative services at competitive rates</i>	
Enterprise Strategic Outcome	Customer loyalty	
2019 Corporate Performance Goals and Supporting Priorities		Assessment ● ▲ ✖
5. Maintain overall distribution system reliability		
a. Smart Grid – Continue implementation of grid transformation and modernization projects including		●
i. New SCADA system - implement additional modules		
ii. [REDACTED]		
b. Maintain or enhance our best in class reliability metrics		●
c. Continue our improvements in maintenance and capital program execution – Emphasis on workforce scheduling and contractor management; Complete all budgeted programs / plans on time and within budget		●
i. Distribution System Renewal and Service (Sustainment Capital Program) – Ongoing implementation of refurbishment and enhancement programs with particular emphasis on aging infrastructure, areas with chronic reliability issues, and on station capacity		●
ii. Distribution System Access (Demand Capital Program) – Ongoing implementation of new residential and commercial customer connections, system expansions, and third party driven plant relocations and upgrades		●
iii. Distribution Testing, Inspection and Maintenance Programs – Ongoing implementation of distribution system and station asset evaluations (testing and inspections of poles, cables, manhole chambers and switches); forestry program execution		●

## Customer Value – Year to Date Results Q2-2019

### Corporate Performance Measures and Targets

Enterprise Strategic Objective	We will deliver value across the entire customer experience By providing reliable, responsive and innovative services at competitive rates								
Enterprise Strategic Outcome	Customer loyalty								
2019 Corporate Performance Measures	2014A	2015A	2016A	2017A	2018 A	2019T	Q2 YTD Target	Q2 YTD Actual	Q2 YTD Assessment
SATISFACTION									
Residential & Small Commercial Annual Satisfaction Survey	HO/ON Pre83%/83% Post89%/80%	HO/ON Pre 87%/86% Post85%/83%	HO / ON Pre81%/81 Post77%/74%	HO / ON Pre90%/85% Post87%/81%	HO / ON Pre 94%/91% Post 93%/89%	≥91%	Annual Metric	Annual Metric	Annual Metric
Large Commercial Annual Satisfaction Survey	N/A	N/A	N/A	90%	HO / ON Pre 94%/93% Post 95%/93%	≥85%	Annual Metric	Annual Metric	Annual Metric
Call Centre Monthly Transaction Survey	88%	90%	89%	87%	78%	≥90%	≥90%	86%	X
Ability to deal with issues (First Call Resolution)	84%	85%	85%	84%	86%	≥86%	≥85%	87%	●
Complaints – Total Number	140	124	106	71	182	≤120	≤9	4	●
Complaints – At Fault	N/A	N/A	N/A	N/A	N/A	≤20 <sup>2</sup>	≤1	1	X
VALUE									
Number of hydrotawa.com sessions <sup>1</sup>	1,047,749	1,267,505	3,170,766	6,088,429	6,623,907	>2,500,000	>625,000	721,158	●
Number of MyAccount customers	122,300	136,890	158,112	167,114	184,067	>186,000	>185,034	193,141	●
Number of e-bill accounts	85,991	102,007	123,801	134,761	150,991	>160,000	>155,496	159,308	●
Number of Auto pay accounts	46,098	48,751	51,520	54,789	63,014	>70,000	>66,507	66,040	X
Number of App Registrants (Downloads)	N/A	N/A	N/A	12,519	24,363	>30,000	>27,182	27,081	X
Number of Mobile App Sessions <sup>1</sup>	N/A	N/A	N/A	8,585		>130,000	>32,500	5,875	X
Number of Twitter Followers <sup>1</sup>	7,630	10,825	12,976	15,687	33,293	>40,000	>36,647	34,919	X
Number of Facebook Followers <sup>1</sup>	N/A	482	2,006	3,039	7,292	>8,500	>7,896	7,946	●
Number of LinkedIn Followers <sup>1</sup>	N/A	2,500	3,358	4,892	6,274	>6,200	>5,546	7,337	●

<sup>1</sup> These metrics were moved from Corporate Citizenship Scorecard to Customer Value Scorecard

## Customer Value – Year to Date Results Q2-2019

### Corporate Performance Measures and Targets

Enterprise Strategic Objective	We will deliver value across the entire customer experience By providing reliable, responsive and innovative services at competitive rates								
Enterprise Strategic Outcome	Customer loyalty								
2019 Corporate Performance Measures	2014A	2015A	2016A	2017A	2018A	2019T	Q2 YTD Target	Q2 YTD Actual	Q2 YTD Assessment
<b>PRODUCT RELIABILITY</b>									
SAIFI – Average Number of Times that Power to a Customer is Interrupted 5 year average <sup>1</sup> 3-year average <sup>2</sup>	0.99 <del>1.12</del>	0.97 <del>0.99</del>	0.89 <del>0.80</del>	0.82 <del>0.80</del>	0.93	≤0.75 N/A	≤0.75 N/A	0.71	●
SAIFI – Average Number of Times that Power to a Customer is Interrupted Annual excluding LOS and MEDs <sup>2</sup> Annual including LOS and MEDs <sup>3</sup>	0.74 0.86 <sup>4</sup>	0.72 0.75 <sup>4</sup>	0.69 0.78 <sup>4</sup>	0.79 0.87 <sup>4</sup>	0.78 (1.78 <sup>1</sup> )	≤0.75 (N/A <sup>3</sup> )	≤0.36 (N/A <sup>3</sup> )	0.25 (0.31)	●
SAIDI – Average Number of Hours that Power to a Customer is Interrupted 5 year average <sup>1</sup> 3-year average <sup>2</sup>	1.07 <del>1.51</del>	1.13 <del>1.46</del>	1.09 <del>1.29</del>	1.10 <del>1.29</del>	2.05	≤1.00 N/A	≤1.00 N/A	0.95	●
SAIDI – Average Number of Hours that Power to a Customer is Interrupted Annual excluding LOS and MEDs <sup>2</sup> Annual including LOS and MEDs <sup>3</sup>	1.08 1.59 <sup>4</sup>	1.08 1.15 <sup>4</sup>	1.00 1.13 <sup>4</sup>	1.19 1.58 <sup>4</sup>	0.85 (22.724 <sup>1</sup> )	≤1.00 N/A <sup>3</sup>	≤0.49 N/A <sup>3</sup>	0.29 (0.38)	●
FEMI (Feeders Experiencing Multiple Interruptions) – Number of feeders with 10 or more interruptions per year	8	9	5	15	10	≤12	≤12	8	●

<sup>1</sup> Excludes Loss of Supply and Major Event days, previously this measure was a three year average, however both industry and the OEB reports on a 5 year average

<sup>2</sup> LOS = Loss of Supply, MED = Major Event Days

<sup>3</sup> No target set for SAIFI and SAIDI including LOS and MEDs

<sup>4</sup> Previously this metric included MEDs but still excluded LOS

## Organizational Effectiveness – Year to Date Results Q2-2019

### Corporate Performance Goals and Priorities

Enterprise Strategic Objective	<b>We will achieve performance excellence</b> <i>By cultivating a culture of innovation and continuous improvement</i>	
Enterprise Strategic Outcomes	<ul style="list-style-type: none"> <li>• <i>Efficient and effective operations</i></li> <li>• <i>Safe and healthy work environment</i></li> <li>• <i>Engaged, aligned and prepared workforce</i></li> </ul>	
2019 Corporate Performance Goals and Supporting Priorities		Assessment ●▲×
6. Continue to enhance operational performance and productivity		

## Organizational Effectiveness – Year to Date Results Q2-2019

### Corporate Performance Goals and Priorities

Enterprise Strategic Objective	We will achieve performance excellence <i>By cultivating a culture of innovation and continuous improvement</i>	
Enterprise Strategic Outcomes	<ul style="list-style-type: none"> <li>• <i>Efficient and effective operations</i></li> <li>• <i>Safe and healthy work environment</i></li> <li>• <i>Engaged, aligned and prepared workforce</i></li> </ul>	
2019 Corporate Performance Goals and Supporting Priorities		Assessment ● ▲ ✕
6. Continue to enhance operational performance and productivity		

## Organizational Effectiveness – Year to Date Results Q2-2019

### Corporate Performance Goals and Priorities

Enterprise Strategic Objective	We will achieve performance excellence By cultivating a culture of innovation and continuous improvement	
Enterprise Strategic Outcomes	<ul style="list-style-type: none"> <li>Efficient and effective operations</li> <li>Safe and healthy work environment</li> <li>Engaged, aligned and prepared workforce</li> </ul>	
2019 Corporate Performance Goals and Supporting Priorities		Assessment ● ▲ ✖
5. Continue to enhance operational performance and productivity (continued)		
f. <b>Facilities Renewal Program</b> - Advance the implementation of the Board approved plan to replace the end of life main office and the south and east operations centres with purpose built facilities which will address location, energy efficiency, employee engagement, etc.		▲
i. Complete the design build of the Administration building and the East and South Operations Centres, operational integration and migration, regulatory case preparation, and property disposition		
7. Maintain leading health and safety record		
a. <b>Occupational Health, Safety and Environment (OHSE) Management System</b>		●
i. Maintain registration of OHSE management system and prepare for update to new ISO 45001 standard (replacing OHSAS 18001)		●
ii. Complete required OHSE training		●
iii. [REDACTED]		-
iv. Continue implementation of OHSE Targeted Action Plan		●
v. Renew physical demands analysis for positions requiring significant physical effort		-

## Organizational Effectiveness – Year to Date Results Q2-2019

### Corporate Performance Goals and Priorities

Enterprise Strategic Objective	We will achieve performance excellence <i>By cultivating a culture of innovation and continuous improvement</i>	
Enterprise Strategic Outcomes	<ul style="list-style-type: none"> <li>• <i>Efficient and effective operations</i></li> <li>• <i>Safe and healthy work environment</i></li> <li>• <i>Engaged, aligned and prepared workforce</i></li> </ul>	
2019 Corporate Performance Goals and Supporting Priorities		Assessment ● ▲ ✖
8. Continue to enhance organizational and employee capability		
a. Union Management Relations –		
i. Application for certification by SEP for representation at HOL		●



## Organizational Effectiveness – Year to Date Results Q2-2019

### Corporate Performance Scorecard

Enterprise Strategic Objective	We will achieve performance excellence By cultivating a culture of innovation and continuous improvement
Enterprise Strategic Outcomes	<ul style="list-style-type: none"> <li>Efficient and effective operations</li> <li>Safe and healthy work environment</li> <li>Engaged, aligned and prepared workforce</li> </ul>

Measures		Description	2014A	2015A	2016A	2017A	2018A	2019 Target	Q2 Target	Q2 Actual		
Labour Utilization	Productive Time	% of Billable Hours / Total Regular Hours	71%	74%	74%	73%	72%	≥ 74%	74%	73%	X	Below target and prior year due to the office relocation; over 3,000 hours reported on office move administrative WO
	Labour Allocation to CAPEX	% of Labour Time on Capital Activities / Total Productive Time	60%	61%	62%	60%	58%	≥ 60%	60%	57%	X	Below target and prior year due to more WFO instead of capital work (i.e. flood mitigation for Portage)
	Average Sick Days per FTE (annualized)	Total Sick Days / Total Employees	5.9	6.3	5.9	6.0	7.1	≤ 6.0	6.8	7.3	▲	Exceeded target, however improvement from Q1 of 8.2 and prior year of 7.6. The improvement is explained by a number of long tenured employees who retired.
	e-Learning Training per employee (annualized)	Number of hours of e-learning / Total Employees	N/A	N/A	N/A	1.0	1.8	≥ 2.0	2.0	2.2	●	Achieved target. Increase in Q2 due to the summer student on-boarding
OM&A	Bad Debt as a % of Total Electricity Revenue	Bad Debt / Total Electricity Revenue	0.18%	0.01%	0.13%	0.20%	0.13%	≤ 0.12%	≤ 0.12%	0.04%	●	Below target and Q1. Improvement in Q2 due to the OEB disconnection ban period ended. Less Finalled accounts in 2019
Asset Efficiency	Technology Infrastructure Cost per Employee	(External IT support costs + computer hardware & software depn) / # of FTE	\$21.5K	\$23.3K	\$24.4K	\$22.8K	\$26.5K	≤ \$24.9K	≤ \$24.3K	\$26.3K	▲	Exceeded target and slightly below prior year. Total costs below budget, but headcount also lower, therefore higher costs per employee
Profitability Metrics	EBITDA as a % Revenue *											
		EBITDA \$ / Total Revenue - Hydro Ottawa Limited	44%	46%	52%	53%	54%	≥ 54%	52%	51%	X	Below target and prior year. Lower EBITDA due to lower distribution revenue and large increase in leak remediation costs
	Inventory Turnover Ratio and Value	Cost of Materials Used / Average Inventory	1.83	1.73	2.27	1.93	1.55	≥ 2.00	≥ 1.94	1.51	X	Below target and prior year due to the move and associated warehouse shut-downs.

## Corporate Citizenship – Year to Date Results Q2-2019

### Corporate Performance Goals and Priorities

Enterprise Strategic Objective	We will contribute to the well being of the community <i>By acting at all times as a responsible and engaged corporate citizen</i>	
Enterprise Strategic Outcomes	<ul style="list-style-type: none"> <li>• <i>Leading governance and business practices</i></li> <li>• <i>Engaged stakeholders</i></li> <li>• <i>Safe, secure and environmentally responsible services</i></li> <li>• <i>Positive community impact</i></li> </ul>	
2019 Corporate Performance Goals and Supporting Priorities		Assessment ● ▲ ✕
9. Enhance our brand image in the community and the industry		



\_\_\_\_\_

## Corporate Performance Measures And Targets

Enterprise Strategic Objective	<p>We will contribute to the well being of the community</p> <p><i>By acting at all times as a responsible and engaged corporate citizen</i></p>								
Enterprise Strategic Outcomes	<ul style="list-style-type: none"> <li>▪ <i>Leading governance and business practices</i></li> <li>▪ <i>Engaged stakeholders</i></li> <li>▪ <i>Safe, secure and environmentally responsible services</i></li> <li>▪ <i>Positive community impact</i></li> </ul>								
2019 Corporate Performance Measures	2014A	2015A	2016A	2017A	2018 A	2019T	Q2 YTD Target	Q2 YTD Actual	Q2 YTD Assessment



## **Board / Committee Report**

**To:** Hydro Ottawa Holding Inc. Board of Directors

**Date:** 28 November 2019

**Submitted by:**

A handwritten signature in black ink, appearing to read "BC", written over a horizontal line.

Bryce Conrad  
President and Chief Executive Officer

**Agenda Item:** 11 - President and Chief Executive Officer Quarterly Report Year to Date as at September 30, 2019

**Report Recommendation(s):**

That the Board of Directors of Hydro Ottawa Holding Inc. receive the quarterly report of the President and Chief Executive Officer year to date as at September 30, 2019.

## EXECUTIVE SUMMARY:

NA

## BACKGROUND:

1. Further to their respective charter responsibilities, the Hydro Ottawa Holding Inc. (HOHI) Board must regularly monitor HOHI's implementation of the enterprise Strategic Plan and HOHI's progress toward achieving that plan, and the Hydro Ottawa Limited (HOL) Board must regularly monitor HOL's implementation of its Business Plan (that is aligned to the enterprise Strategic Plan established by HOHI) and HOL's progress toward achieving it.
2. The quarterly President and Chief Executive Officer (CEO) report of progress against the annual Board-approved Corporate Performance Scorecard assists the Boards in fulfilling these charter responsibilities.
3. The quarterly President and CEO report and the Corporate Performance Scorecard are components of Hydro Ottawa's integrated planning and performance management framework that was put in place in April 2007 to strengthen alignment between our strategy and guiding principles to individual contribution and performance. This was in response to a need that had been identified in the 2005-2006 Governance Work Plan approved by the HOHI Board in August 2005 to improve Hydro Ottawa's governance and business practices.
4. The integrated planning and performance management framework provides for the following:
  - a. An enterprise strategic plan (our Strategic Direction) approved by the HOHI Board that sets our course for a five-year period;
  - b. Board-approved annual business plans at the both the HOHI and HOL levels comprised of a Corporate Performance Scorecard (priorities and measures and targets) and Budget that operationalize the enterprise strategic plan in a given year, and that cascade to employees through Individual Contribution Plans and performance appraisal system);
  - c. Regular monitoring and reporting of performance and progress against annual plans and budget including
    - i. Monthly reviews by the Executive Management Team of financials, status of priorities and critical projects, and performance measures and targets as established for each key area of focus in the annual Corporate Performance Scorecard,
    - ii. **A quarterly President and CEO Report to the two Boards of progress against the Corporate Performance Scorecard, including ERM reporting,**
    - iii. Quarterly Financial Reports and Monthly Updates to the Shareholder, and
    - iv. An Annual Report to the Shareholder; and
  - d. An annual review of the critical issues and opportunities facing the company by the Executive Management Team and subsequently by the Boards of Directors

to determine whether an adjustment to our five-year course is required as part of the development of the annual plan (Corporate Performance Scorecard and budget & financial outlook) for the next year.

**DISCUSSION:**

5. The presentation attached at Annex "A" is the President and CEO quarterly report to the Boards year to date as at September 30, 2019. It includes the following information:
  - a. Quarter at a Glance – Summary Corporate Priorities;
  - b. Enterprise Risk Management (ERM) Assessment;
  - c. Q3 2019 Results Highlights;
  - d. Progress Against Plan – Corporate Performance Scorecard (Qualitative Corporate Priorities and Quantitative Performance Measures and Targets);  
and
  - e. Compliance, Legal Issues and Provincial Programs.

**SUPPORTING DOCUMENTATION:**

Annex "A" - President & CEO Report Year to Date as at September 30, 2019

Annex "A"



**HydroOttawa**

A leading partner in a  
smart energy future

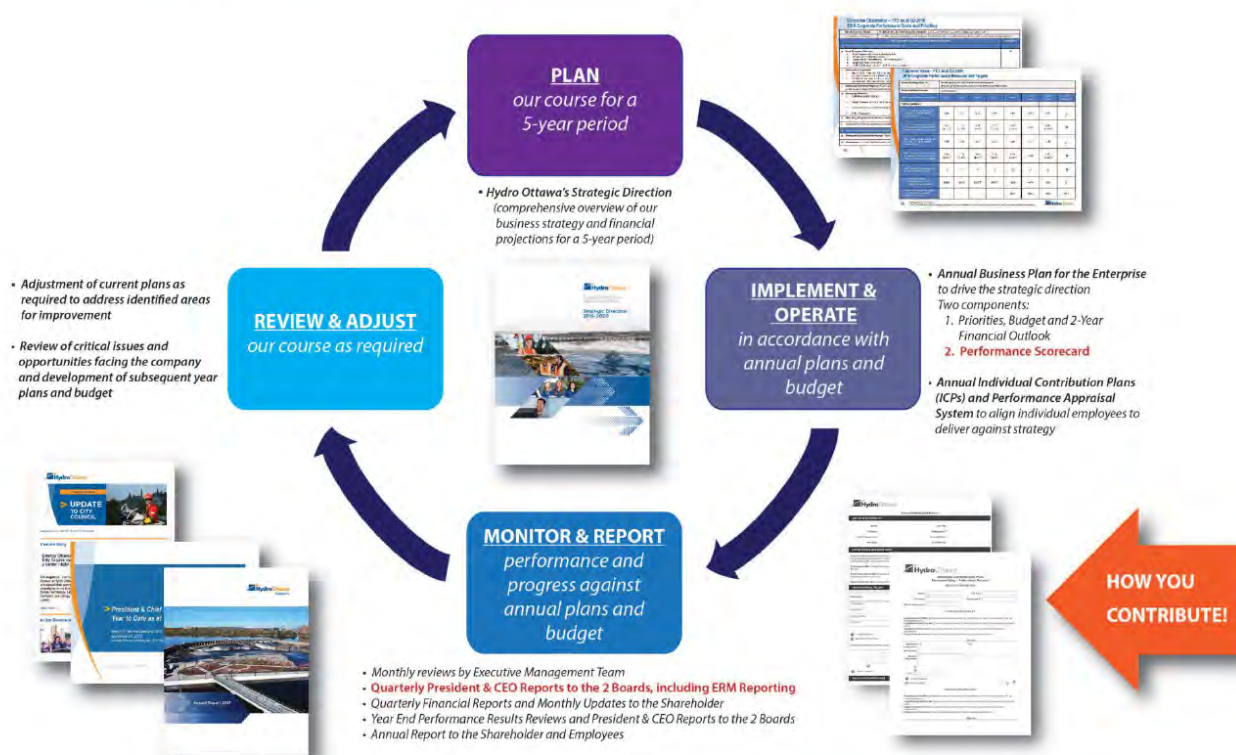
**President & CEO Report  
Year to Date as at September 30, 2019**

Hydro Ottawa Limited and Hydro Ottawa  
Holding Inc. Boards of Directors

November 28, 2019

The graphic features a collage of four images on the left side, arranged in a triangular shape. The top image shows a female worker in an orange safety vest and hard hat. The middle image shows two male workers in safety vests. The bottom image shows three female workers in blue uniforms. The background is a large image of a dam with water flowing over it. The bottom right corner has a blue background with white text and a large blue arrow pointing right.

## Context – Our Integrated Planning & Performance Management Framework



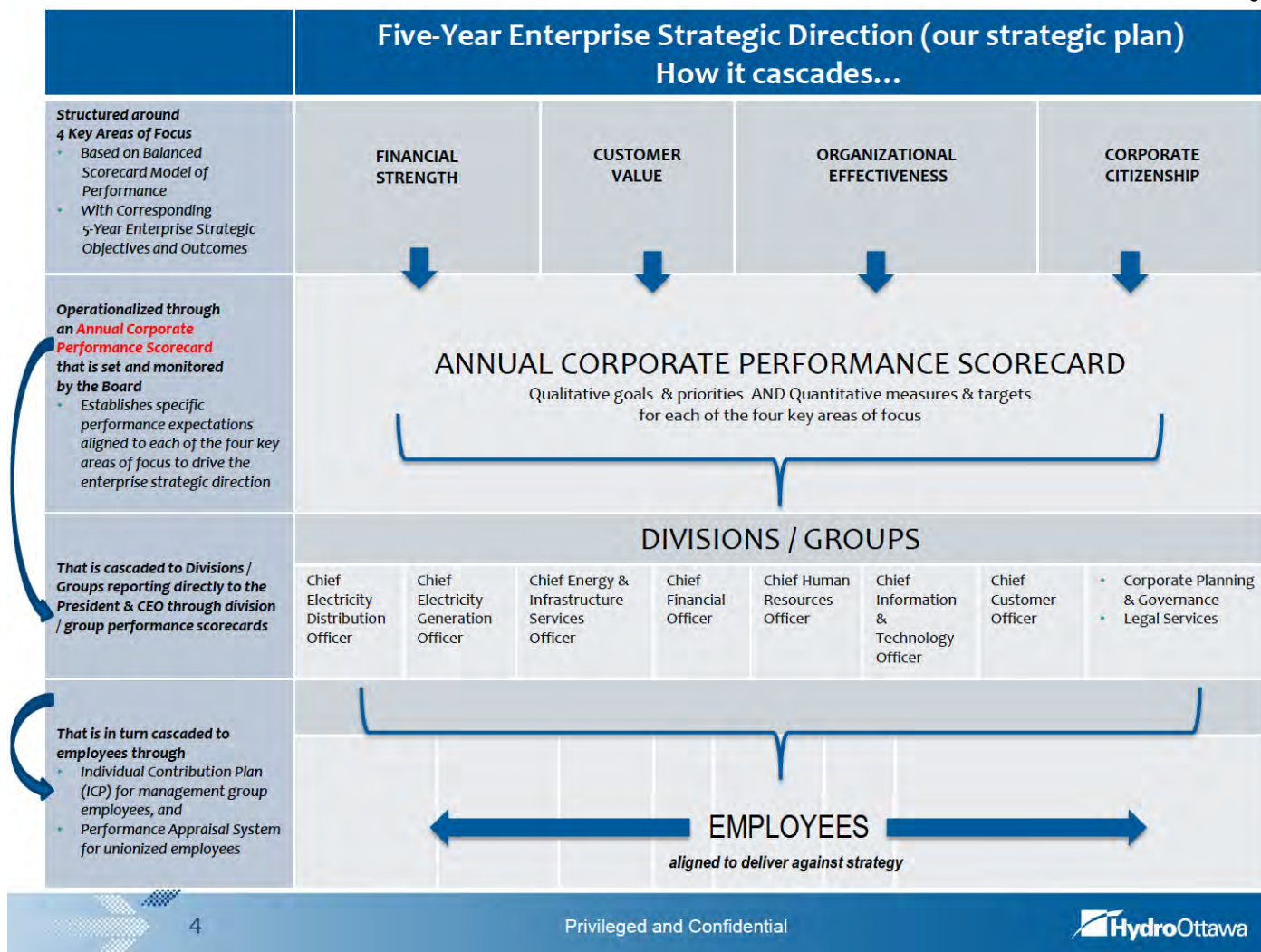
## Context – 2019 Corporate Performance Scorecard...

- For 2019, the Board approved **one corporate performance scorecard for the enterprise**
- The scorecard established qualitative performance goals and priorities and quantitative measures and targets in each of our four key areas of focus to support the advancement of the Strategic Direction in 2019

- Customer Value
- Financial Strength
- Organizational Effectiveness
- Corporate Citizenship



- The scorecard also included separate quantitative Financial Strength performance targets for the HOL entity
- Performance priorities for executive and management staff for 2019 were cascaded from the corporate performance scorecard (*see next slide*)
- Results highlights and progress against the scorecard (including ERM assessment) are reported quarterly to the HOHI and HOL Boards by the President & CEO





## Overview of Report

1. Quarter at a Glance – Summary Corporate Priorities
2. Enterprise Risk Management (ERM) Assessment
3. Q3 2019 Results Highlights
4. Compliance, Legal Issues and Provincial Programs
5. Progress Against Plan – Corporate Performance Scorecard
  - Qualitative Corporate Priorities
  - Quantitative Performance Measures and Targets



## Section 1 – Summary Corporate Priorities









## 2019 Performance Goals Summary


5-Year Enterprise Strategic Objectives and Outcomes (2016-2020)		2019 Corporate Performance Goals
Financial Strength	<p><b>Enterprise Strategic Objective:</b>            We will create sustainable growth in our business and our earnings  <i>By improving productivity and pursuing business growth opportunities that leverage our strengths – our core capabilities, our assets and our people</i></p> <p><b>Enterprise Strategic Outcome:</b>            Growth in shareholder value</p>	<ul style="list-style-type: none"> <li>• Grow revenues from new sources</li> <li>• Enhance / protect revenues from existing business lines</li> </ul>
Customer Value	<p><b>Enterprise Strategic Objective:</b>            We will deliver value across the entire customer experience  <i>By providing reliable, responsive and innovative services at competitive rates</i></p> <p><b>Enterprise Strategic Outcome:</b>            Customer loyalty</p>	<ul style="list-style-type: none"> <li>• Assist customers in managing their energy consumption and electricity costs</li> <li>• Deliver on customer expectations for service quality and responsiveness</li> <li>• Maintain overall distribution system reliability</li> </ul>
Organizational Effectiveness	<p><b>Enterprise Strategic Objective:</b>            We will achieve performance excellence  <i>By cultivating a culture of innovation and continuous improvement</i></p> <p><b>Enterprise Strategic Outcomes:</b>            Efficient and effective operations            Safe and healthy work environment            Engaged, aligned and prepared workforce</p>	<ul style="list-style-type: none"> <li>• Continue to enhance operational performance and productivity</li> <li>• Maintain leading health and safety record</li> <li>• Enhance organizational and employee capability</li> </ul>
Corporate Citizenship	<p><b>Enterprise Strategic Objective:</b>            We will contribute to the well being of the community  <i>By acting at all times as a responsible and engaged corporate citizen</i></p> <p><b>Enterprise Strategic Outcomes:</b>            Leading governance and business practices            Engaged stakeholders            Safe, secure and environmentally responsible services            Positive community impact</p>	<ul style="list-style-type: none"> <li>• Enhance our brand image in the community and the industry</li> <li>• Continue to improve our environmental performance and reduce our impact on the environment</li> </ul>

Financial Strength – Summary Key Corporate Priorities		Assessment
Grow revenues from new sources and enhance / protect revenues from existing business lines		● ▲ X
1.	[REDACTED]	■
2.	[REDACTED]	■
3.	[REDACTED]	■
4.	[REDACTED]	■
5.	2021 – 2025 Electricity Custom Incentive Rate Application – finalize planning, preparations, and submission by end of 2019	●
6.	[REDACTED]	■
7.	Maximize CDM GWh results to achieve 2020 financial incentives	X
8.	[REDACTED]	■



Legend: ● Tracking to plan ▲ Tracking behind plan X Action required

<b>Customer Value – Summary Key Corporate Priorities</b> <i>Assist customers in managing their energy consumption and electricity costs; deliver on customer expectations for service quality and responsiveness; and maintain overall system reliability</i>		<b>Assessment</b> 
1.	Continue to deliver a range of CDM programs that are customer-centric, cost effective and generate strong GWh results, including a. Residential Programs including Hydro Ottawa's app b. Commercial Programs including Small Business Lighting and building retrofit	 
2.	Maintain or enhance our best in class reliability metrics	
3.	Continue implementation of Customer Experience Roadmap key deliverables including using data to drive decisions impacting customers	
4.	Actively pursue and participate in energy innovation projects	
5.	Smart Grid – continue implementation of the foundational grid transformation and modernization projects [REDACTED] and further leverage new SCADA system	
6.	Continue our improvements in maintenance and capital execution – emphasis on workforce scheduling and contractor management; complete all budgeted programs / plans on time and within budget	

Legend:  Tracking to plan  Tracking behind plan  Action required

Organizational Effectiveness – Summary Key Corporate Priorities <i>Continue to enhance operational performance and productivity; maintain leading health and safety record; and enhance organizational and employee capability</i>		Assessment ●▲×
1.	[REDACTED]	■
2.	[REDACTED]	!
3.	[REDACTED]	■
4.	Facilities Renewal Program – complete the design/build of the administration building and the east and south operations centres, operational integration and migration, change management and employee engagement, regulatory case preparation and property disposition	●
5.	Union Management Relations – manage outcome of application for certification by SEP for representation at HOL; [REDACTED]	●

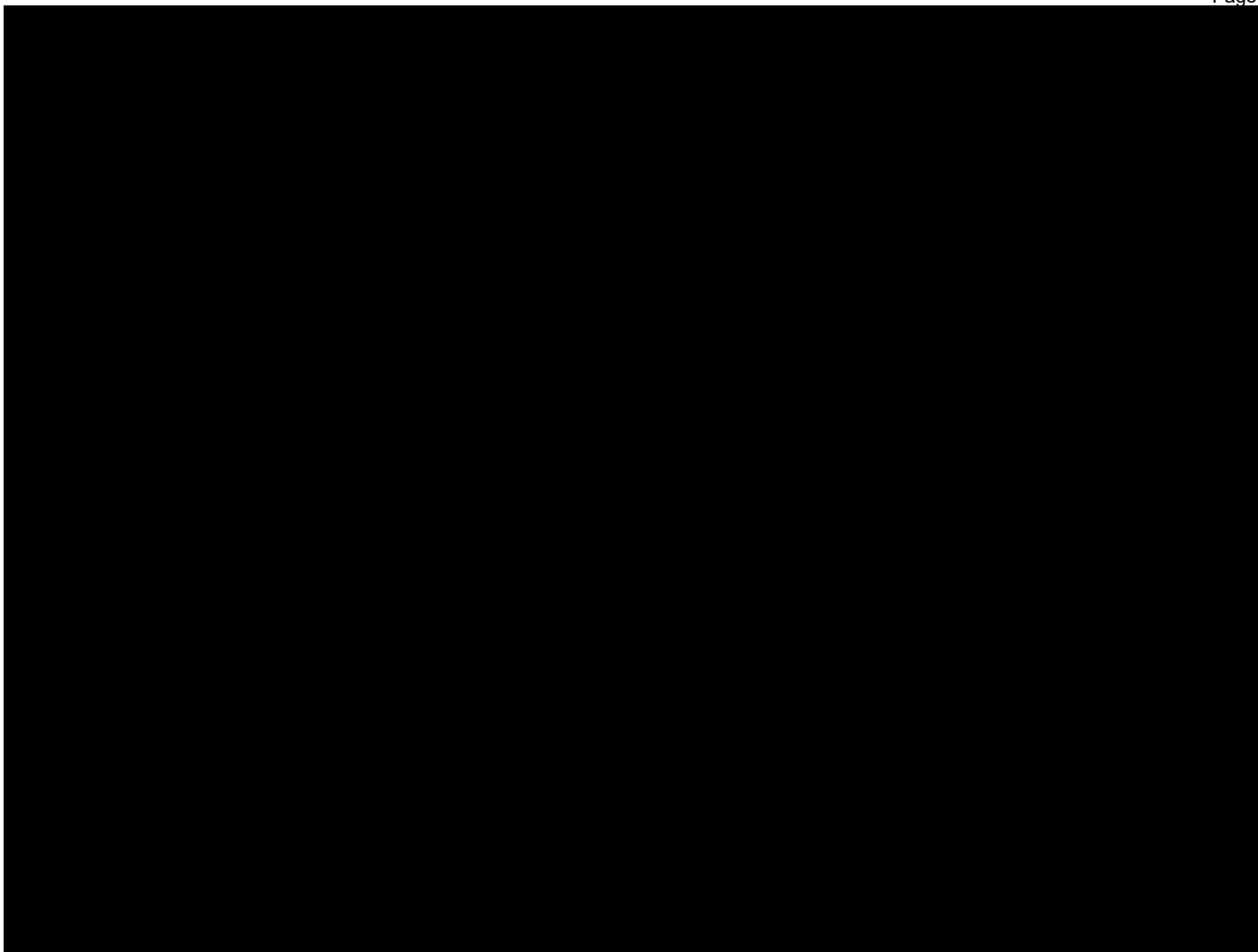
Legend: ● Tracking to plan ▲ Tracking behind plan × Action required

Corporate Citizenship – Summary Key Corporate Priorities <i>Enhance our brand image in the community and the industry; improve our environmental performance and reduce our impact on the environment</i>		Assessment ● ▲ X
1.	[REDACTED]	■
2.	[REDACTED]	■
3.	[REDACTED]	■
4.	[REDACTED]	■
5.	[REDACTED]	■
6.	[REDACTED]	■

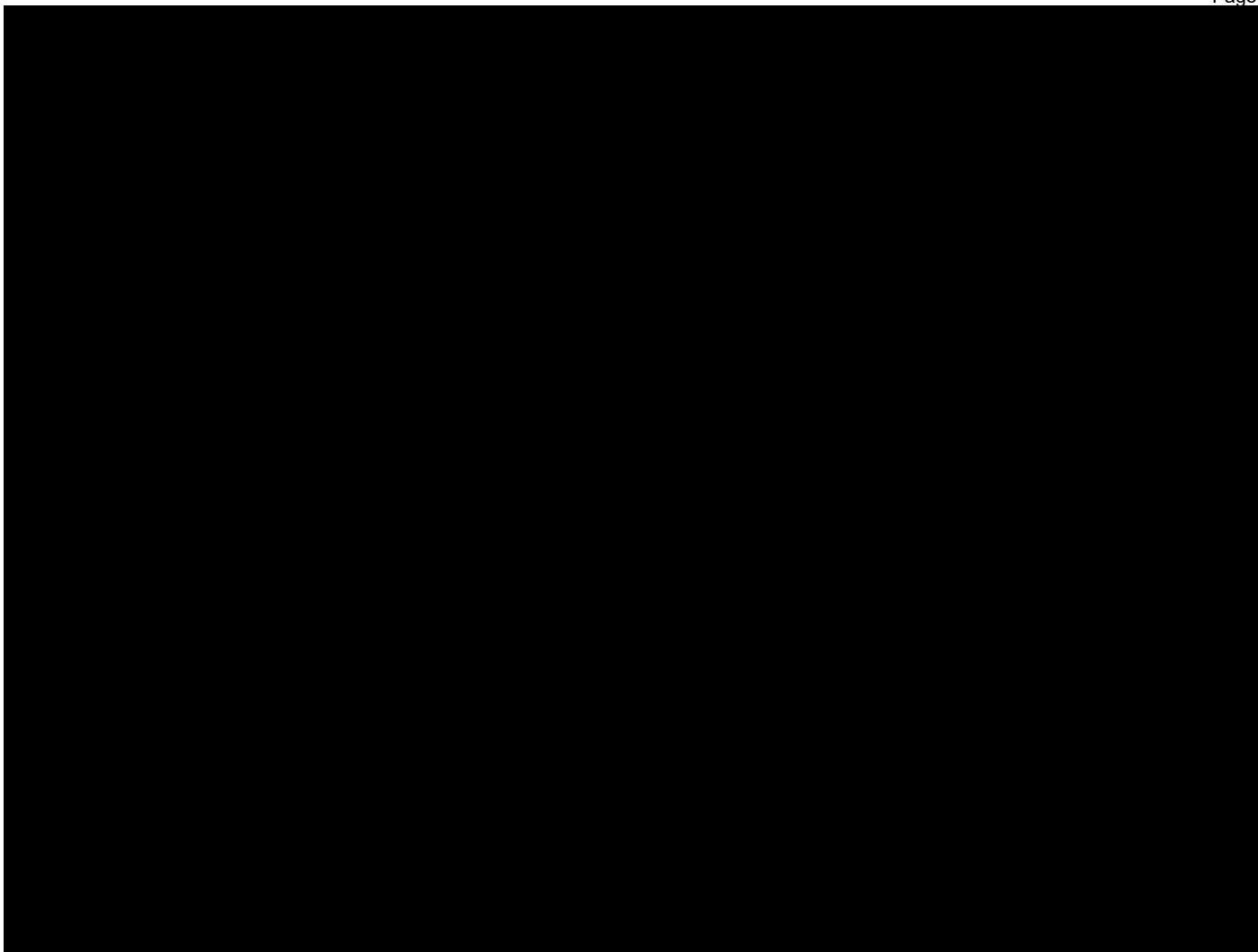


A photograph showing a person's hands interacting with a laptop. The image is overlaid with a semi-transparent blue rectangle. Inside this rectangle, the text 'Section 2 – Enterprise Risk Management (ERM) Assessment' is written in white. Below the text, there are two large, stylized arrows pointing to the right, composed of a grid of dots. The top arrow is white, and the bottom arrow is dark blue.

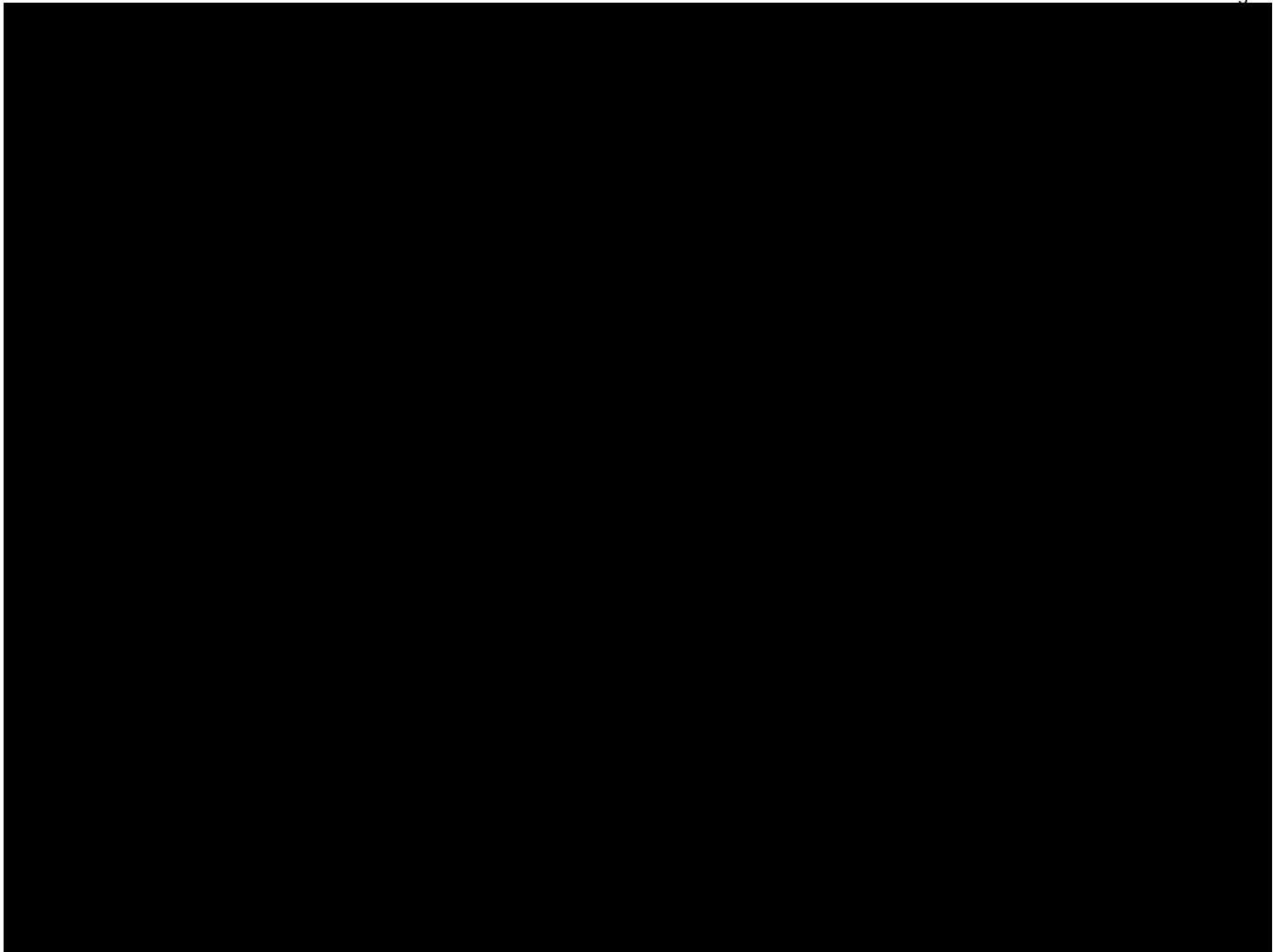
## Section 2 – Enterprise Risk Management (ERM) Assessment



HYDRO OTTAWA LIMITED 2019 - THIRD QUARTER - ENTERPRISE RISK MANAGEMENT OUTLOOK				
FOCUS AREA / Risks	Q3 - 2019	Outlook for 2019	Long Term Outlook (2-5 years)	Watch Areas
<b>FINANCIAL STRENGTH</b>				
Stagnant or Declining Revenue	●	●	▲	The Ministry of Energy has not yet followed through on its announcement earlier this year that hydro rate increases will be held to inflation. Ongoing uncertainty about the provincial government's policy direction may warrant a cautious medium-term outlook, including for the 2021-2025
Declining Profitability	●	●	▲	The 2-to5-year outlook is cautious as there is uncertainty about the policy / regulatory measures the Ontario government will enforce in reducing electricity bills by 12%.
Declining Financial Strength	▲	▲	▲	Debt levels are expected to reach 66% of capital by the end of 2019, stemming from capital commitments in the 2016-2020 rate application. High capital spending levels are expected to continue for the 2021-25 rate cycle which will continue to increase the debt level in HOL compared to the deemed 60% and will also increase debt at the HOHI level which will continue to pressure the credit ratings.
Unexpected Financial Loss	●	●	●	
<b>CUSTOMER VALUE</b>				
Declining Service Delivery	●	●	●	
Declining Customer Loyalty	●	▲	▲	The Province's March 2019 decision to centralize CDM programs at the IESO could adversely affect Hydro Ottawa's credibility and standing as a partner in conservation service offerings.
Declining Customer Satisfaction	▲	●	▲	(1) Q3 saw an uptick in scam calls/activity which could potentially erode customer confidence. (2) New regulations for the mandatory reporting of privacy breaches under PIPEDA came into effect late in 2018. More complexity likely in the secure management of customer information, especially if Canada adopts elements of GDPR.
<b>ORGANIZATIONAL EFFECTIVENESS</b>				
Declining Operational Effectiveness	●	●	●	
Loss of Operational Capacity	●	●	▲	Proposed OEB action may require adjustments to Hydro Ottawa's corporate governance, including modifications to the composition of the HOL Board. Additional reporting requirements are pending as well.
Declining Employee Morale, Motivation	▲	▲	▲	Legal proceedings continue on the Society of Energy Professionals' move to represent sections of HOL's workforce.
Unsafe / Unhealthy Business Work Environment	▲	●	●	A higher number of spills occurred in Q3. The IR scanning program is expected to identify and remediate leaks before they become larger spills
<b>CORPORATE CITIZENSHIP</b>				
Loss of Credibility within the Community and Industry	●	●	▲	Electricity has receded somewhat as a political factor in Ontario. It is possible, however, that the provincial Government may continue to press its policy priorities for the sector (e.g. lower rates) through regulatory and other directive measures.
Erosion of Shareholder Value	●	●	●	

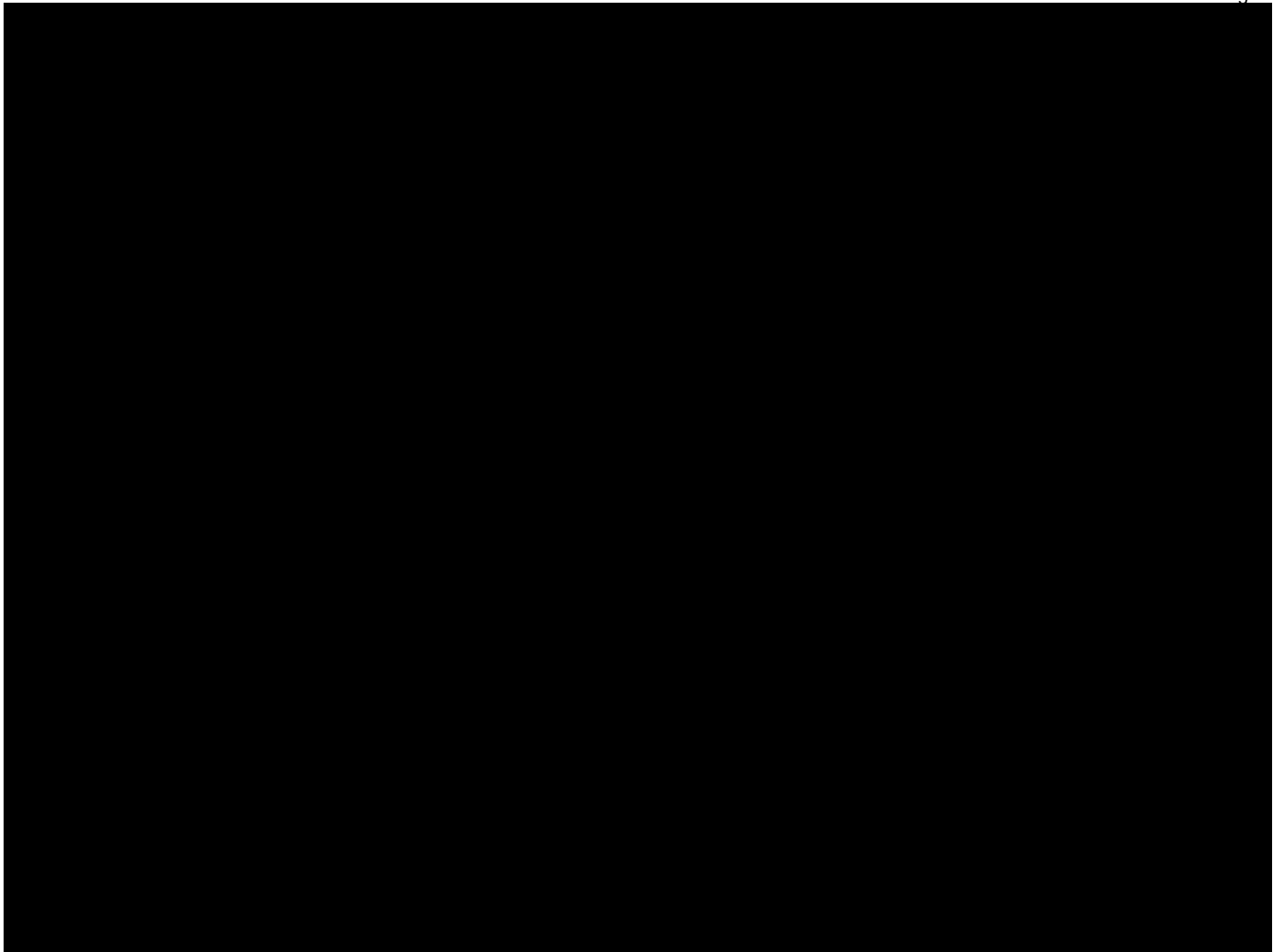


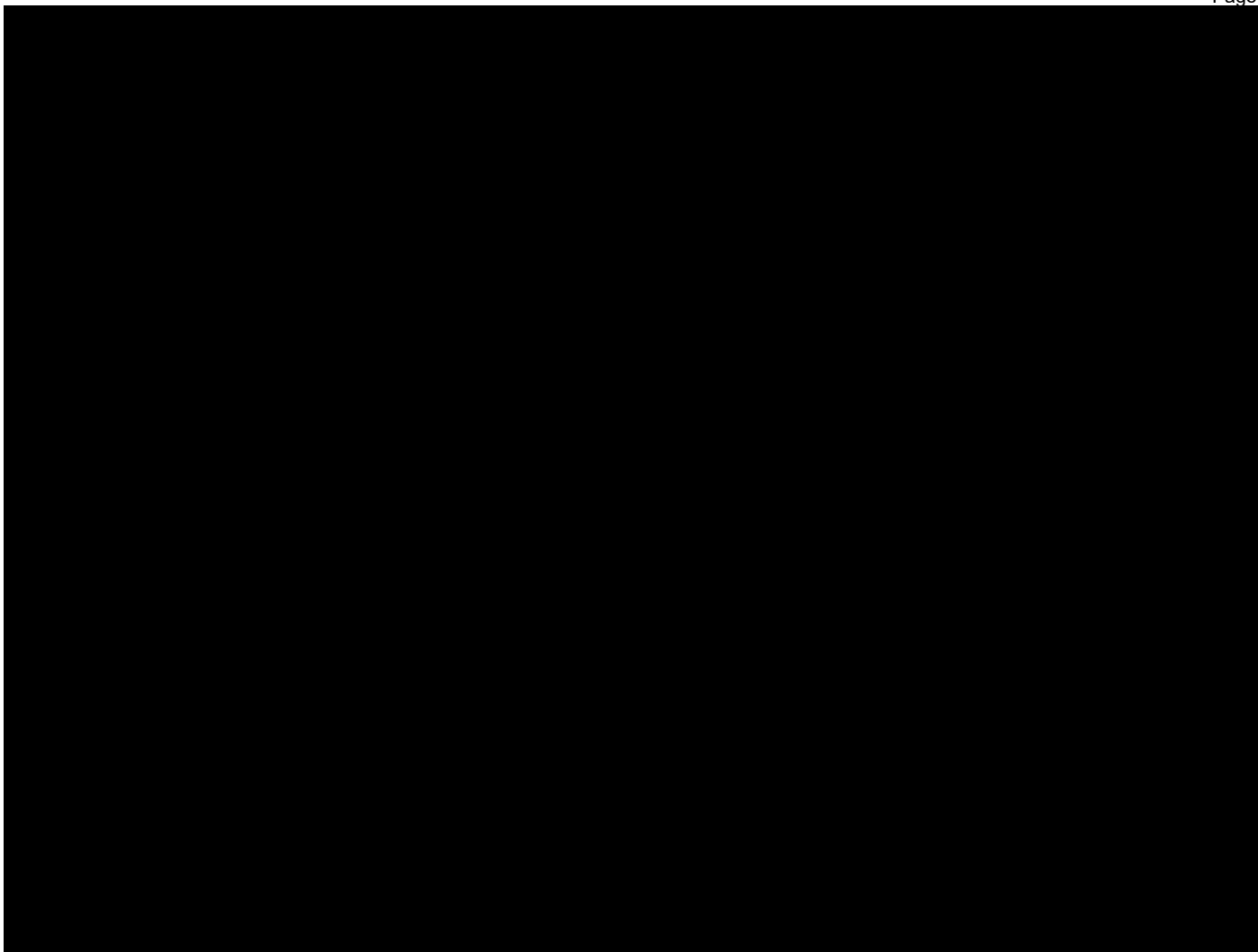


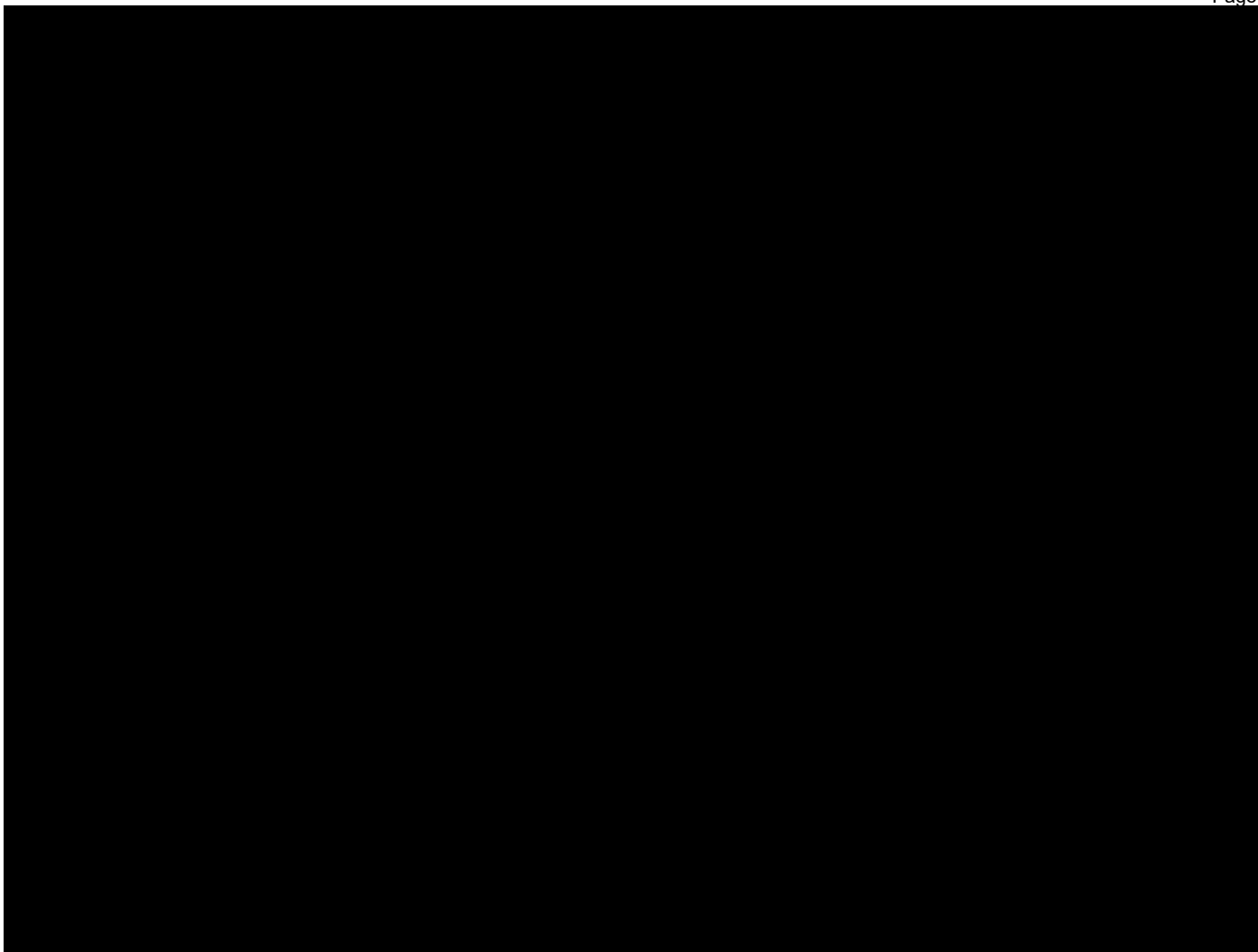


## Q3-2019 HOL Net Income also ahead despite revenue shortfalls ...

- Net income of \$26.6M surpassed budget by \$0.9M or 3%
  - Revenues of \$155.7M below budget by \$1.4M (1%)
  - Expenses of \$77.8M exceeded budget by \$3.9M (5%)
  - Resulting EBITDA below budget by \$5.1M or 6%
- Forecast net income continues to grow - full year favourable variance of \$1.9M anticipated
- Net capital investments of \$82.5M exceeded budget by \$8.4M due to timing of Facilities spending – originally budgeted in Q4 2018 but incurred in Q1 2019
- Forecast capital investments of \$115.8M - anticipated to exceed annual budget by \$1.7M
- Net cash inflows from operating activities of \$55.3M below cash outflows from acquisition of capital assets of \$104.1M by \$48.8M
- Merivale building was sold successfully - proceeds of \$9.2M recorded in Q3 (Net Gain of 200k on the property to be returned to the rate payer) (Proceeds received from Norton Rose on October 1, 2019)







## Preparations for the 2021-2025 Custom Incentive Rate Application continued...



## Q3 customer satisfaction results slightly below target, and year to date reliability met or exceeded expectations leading to a positive outlook for year end

### • SATISFACTION

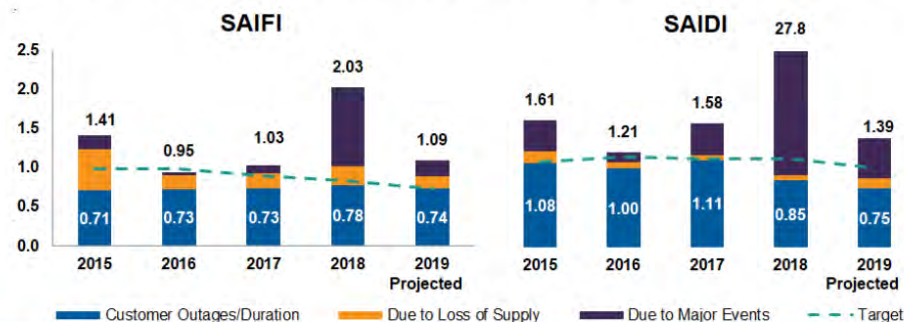
- Call center customer satisfaction was 88% YTD 2019 (target is 90%)
- First call resolution was 88% YTD 2019 (target 85%)
- Brand sentiment (media coverage) was 100% YTD 2019 (target 97%)

### • VALUE

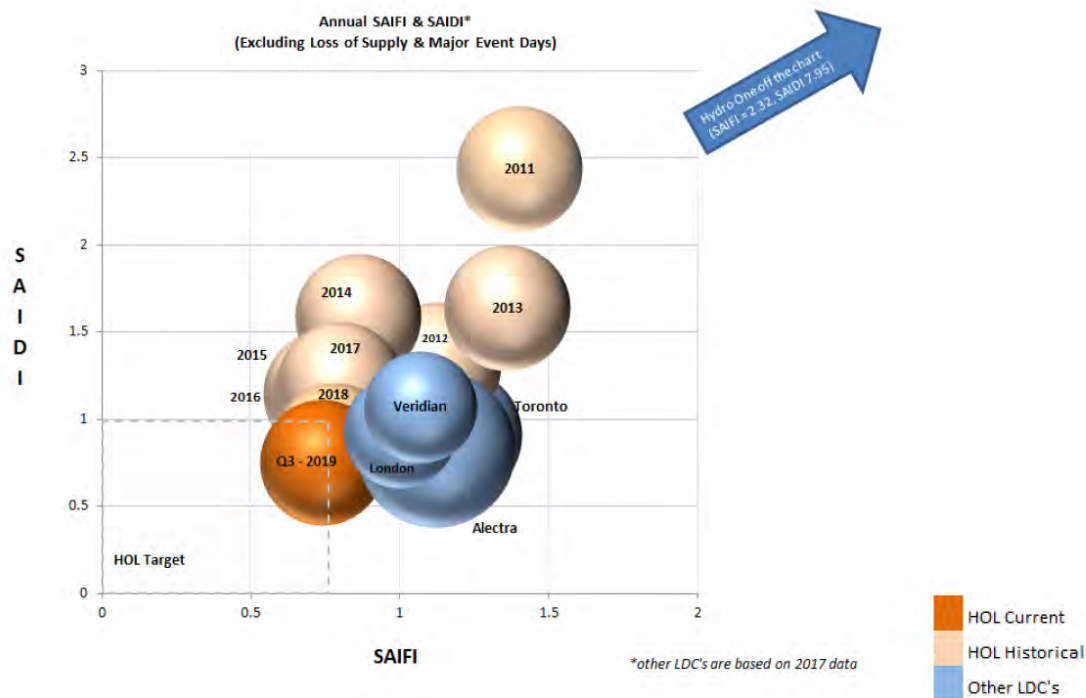
- My Account registrations increased by 2%; 196,600 (59%) accounts
- Online Billing registration increased by 2%; 163,075 (49%) accounts
- Autopay registrations increased by 3%; 67,934 (21%) accounts

### • RELIABILITY

- The projected annual reliability performance for SAIFI and SAIDI, excluding Loss of Supply and Major Events, is 0.74 and 0.75, respectively. For SAIFI, this is slightly above the OEB 5-year target of 0.73. For SAIDI, this is below the OEB 5-year target of 0.99.
- There was a Major Event Day (MED) on July 5<sup>th</sup> that affected 70,069 customers and resulted in 68,268 customer outage hours. The MED was caused by Loss of Supply due to lightning on the transmission network.
- Year to date, the leading causes of customer interruptions have been Defective Equipment (203), Loss of Supply (19) and Foreign Interference (168). In September, there were 24 foreign interference outages (168 YTD), 5 Tree Contacts (50 YTD) and one large lightning outage (22 YTD), contributing to the exceedance of their respective YTD 5 year averages.



## We continued to compare favourably to our peers and to previous performance...



## We assisted customers in managing their energy consumption and electricity costs...

### Energy Conservation Programs

- **Linking opportunities to business**
  - MUSH (Municipal, Universities, Schools, Hospitals) • Corporate Multiple Accounts
  - PoolSaver Program launch, will run until 2020
    - Target 3200 throughout province
  - Smart Thermostat Joint Program with Enbridge
    - Splitting \$75 rebate with Enbridge in non-grid constrained areas
    - Concentrated Marketing efforts in the Kanata North area
- Commercial Refrigeration program cancelled

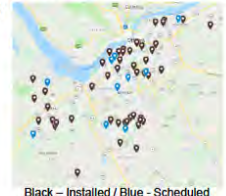


### Electricity Financial Support Programs

- Continued promotion of financial assistance programs such as LEAP, OESP, EMPP and Affordability Trust
- Ontario Electricity Support Program (OESP) – 28,895 recipients (~ 8% increase from last quarter)
- Equal Monthly Payment (EMPP) – 19,353 accounts registered ↓

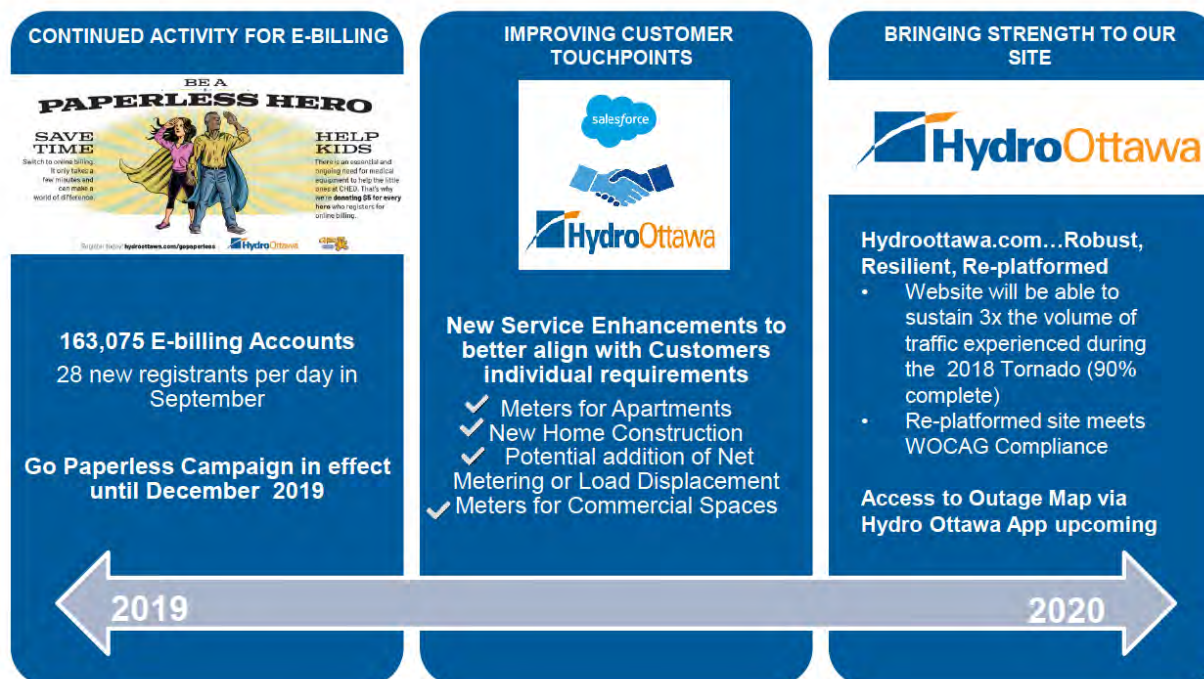


### Energy Innovation Projects

- EV Charger Residential Pilot Program – 68 of 100 chargers installed (just under 50%)
  - 
  - Black – Installed / Blue – Scheduled
- EV Readiness Assessments – continues to track at a 90% win rate in multi-residential and condo groups across Ottawa/Gatineau area
- EV Investments with NRCan
  - ZEVIP (Zero Emission Vehicle Infrastructure Program) – includes 26 chargers for City of Ottawa – pending gov't approval
  - ZEV Awareness Initiative – targeting Commercial & Key Account customers in Ottawa – pending approval from IESO

## We took steps to improve service quality and responsiveness...

Continued evolution through our Customer Experience Roadmap Initiatives

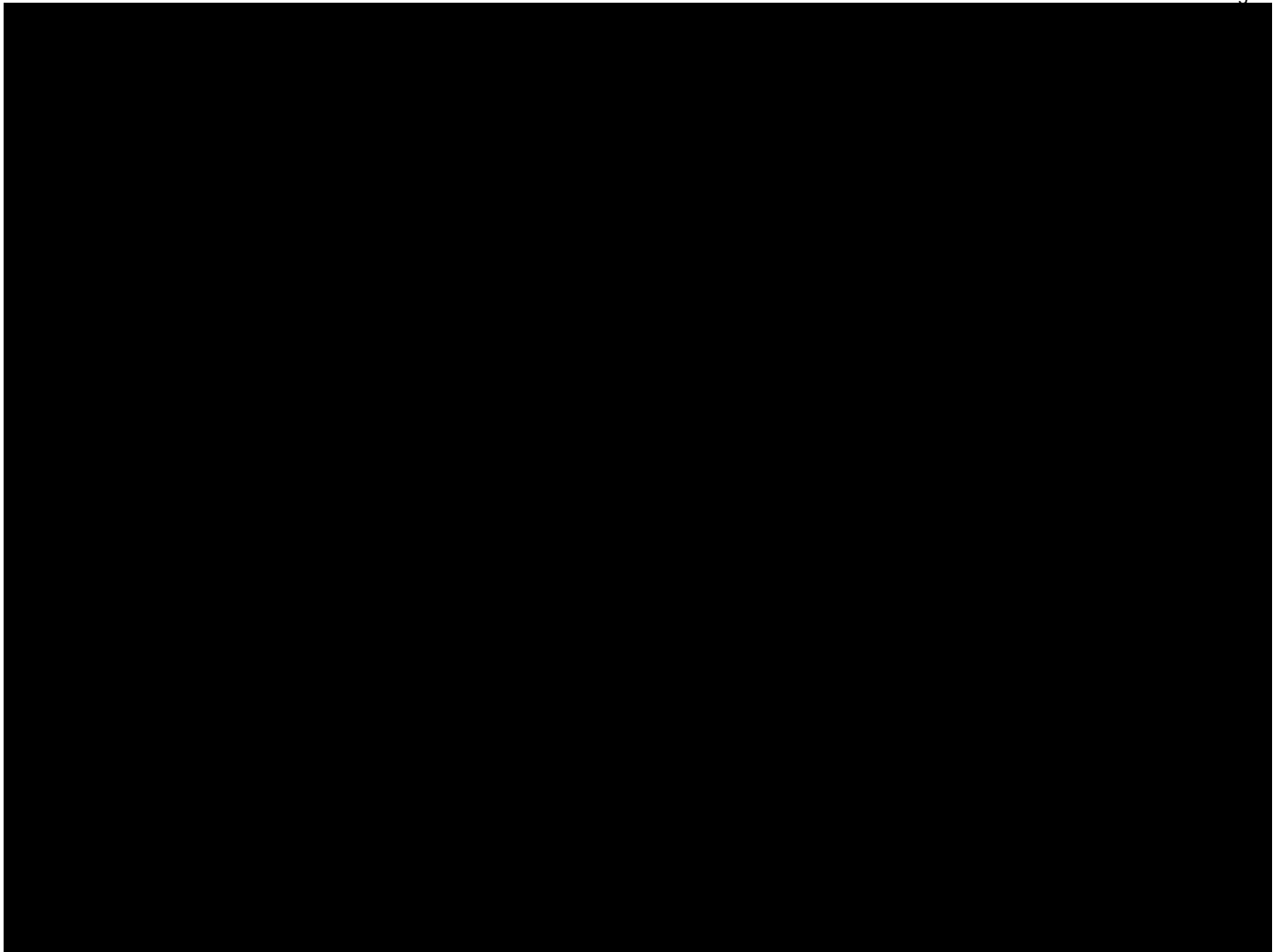


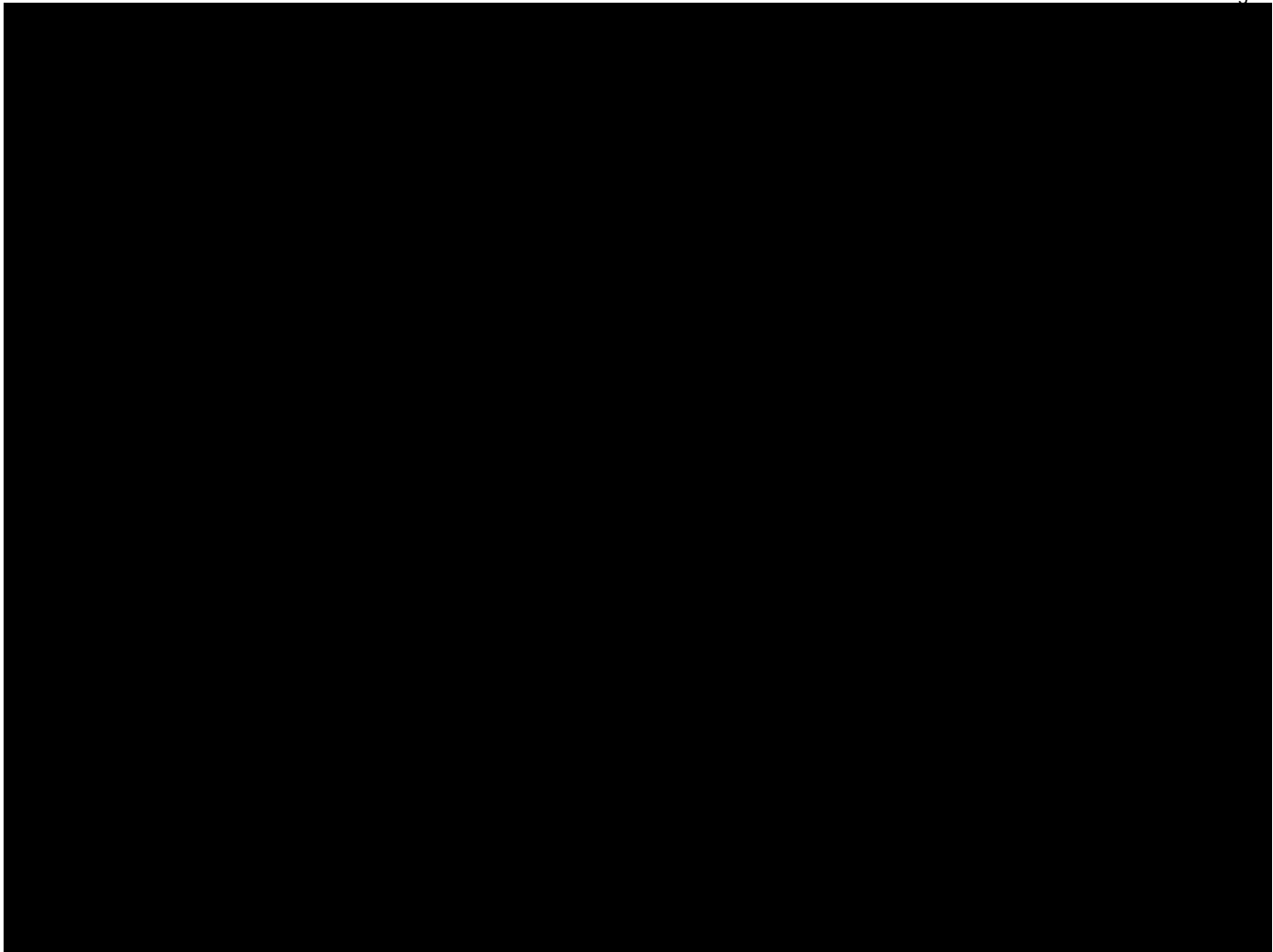
## And we invested in our distribution system...

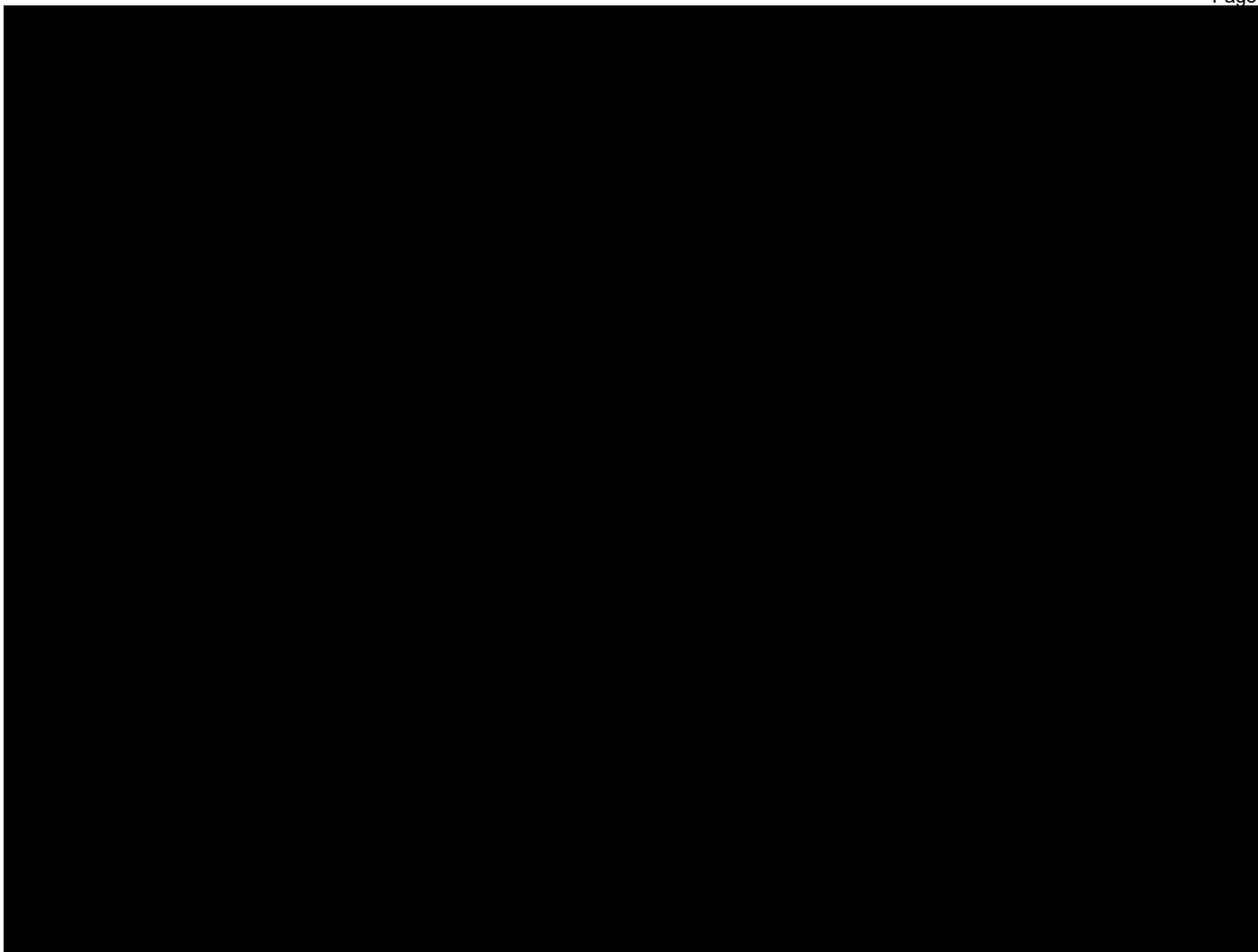


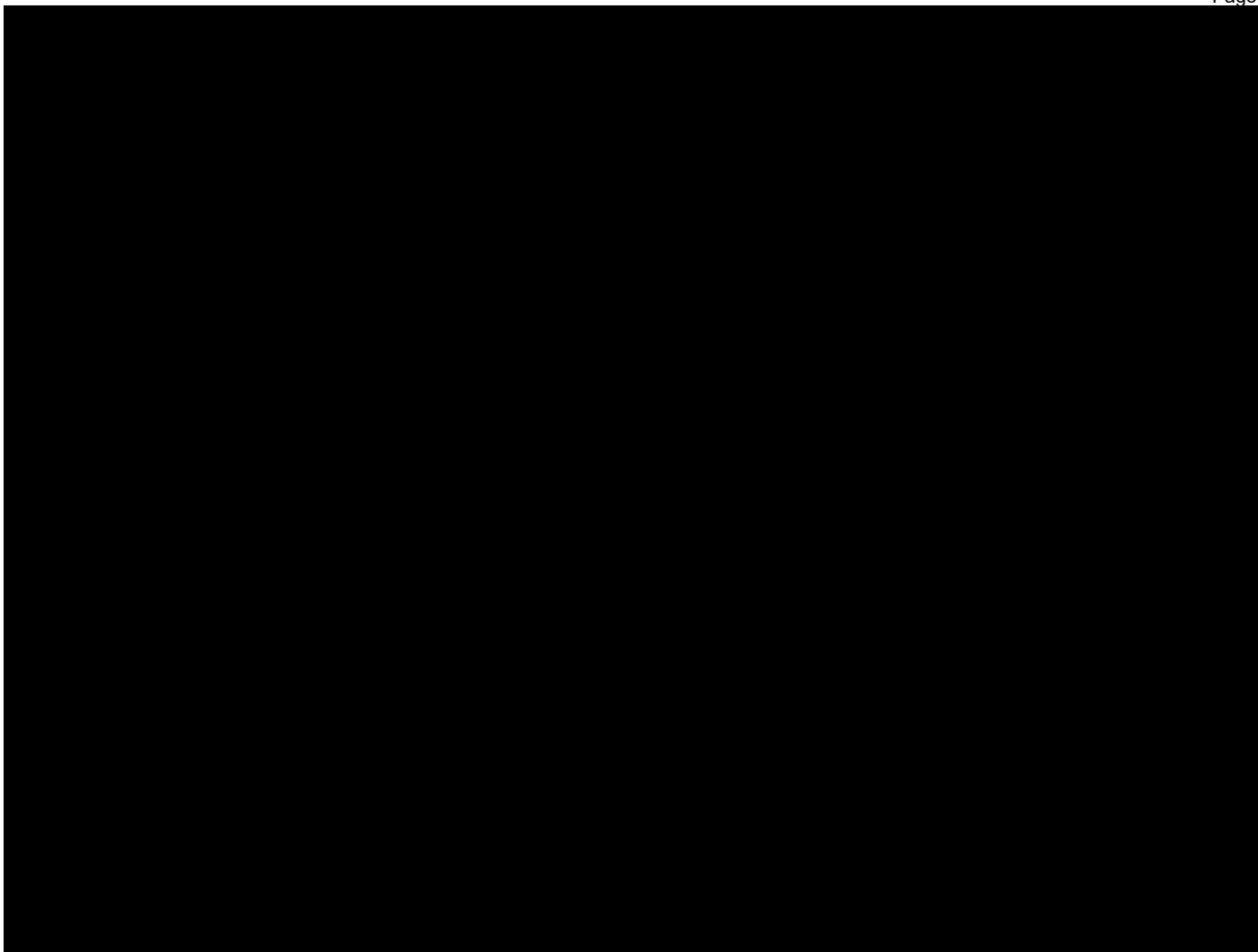
### OVERALL DISTRIBUTION SYSTEM RELIABILITY

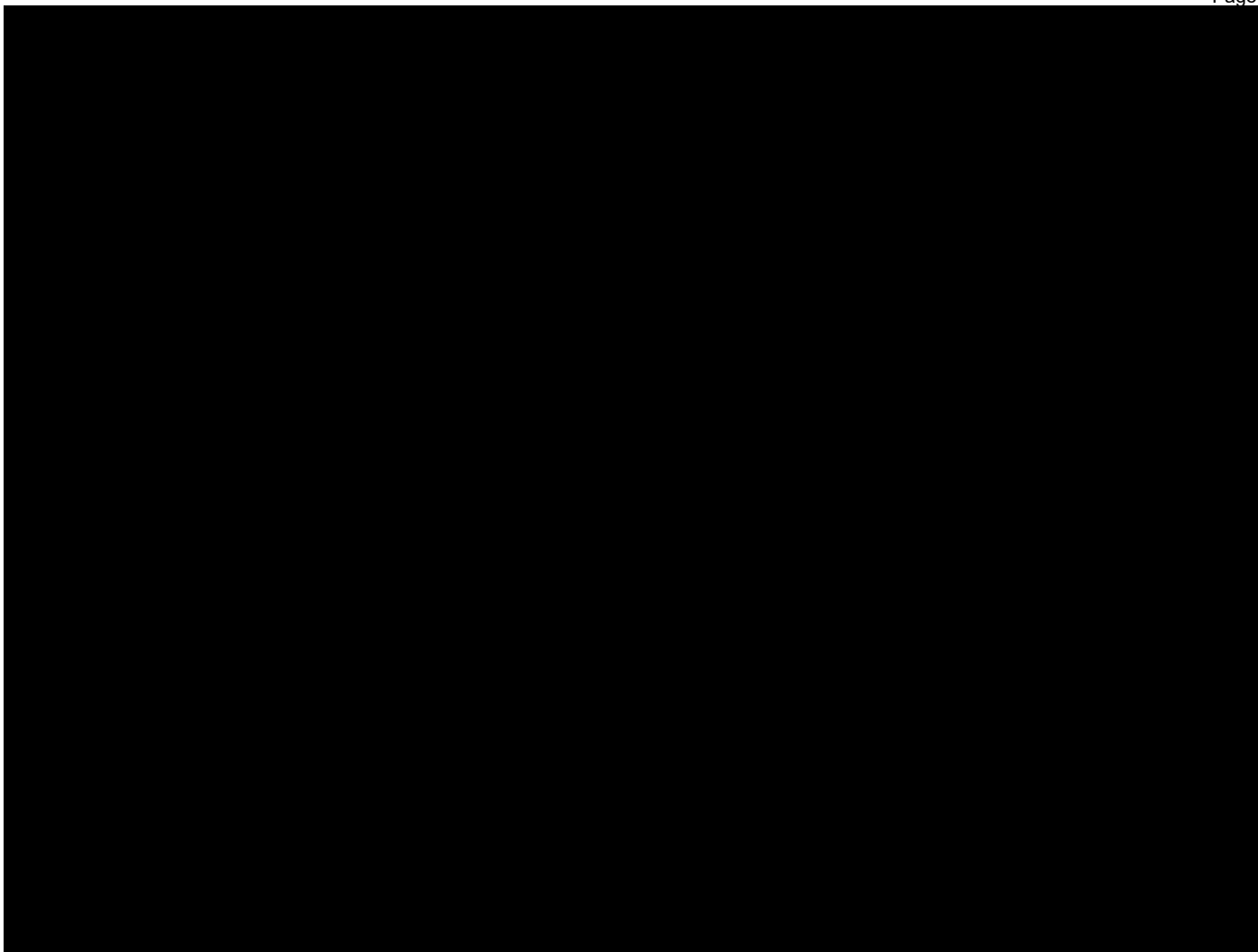
- **Smart Grid - implementation of foundational grid transformation and modernization projects**
  - **Telecom Dark Fibre Network** – Fibre construction continued to progress. Expect to have 150Km installed and in place by the end of 2019. Budget overruns due to extensive civil work, cost of design and contractor pricing
- **Continued improvements in maintenance and capital program execution to enhance reliability of our distribution system**
  - **Distribution System Renewal and Service (Sustainment Capital Program)**
    - **System Renewal and Service:** Including the Cambrian station, the overall YTD Q3 spending is below budget by \$0.26M partly due to underspend in Cable Replacements.
    - **Emergency Renewal :** Overall Q3 YTD spending exceeded budget by \$2.04M due primarily to overspend in Switches, Transformers and Cable (increase in PILC cable faults during the summer period).
  - **Distribution System Access (Demand Capital Program)**
    - Q3 spending is \$1.5M below budget with a corresponding reduction in capital contributions, mostly as a result of external scheduling delays. Overall capital contributions percentage is slightly higher than budgeted.
  - **Distribution Testing, Inspection and Maintenance Programs**
    - Execution of Testing, Inspection, and Maintenance programs remains on schedule with overall programs expected to be delivered on time and at ~\$0.7M over budget as a result of an increase in environmental remediation costs, partially offset by deferrals in the Vegetation Management program.

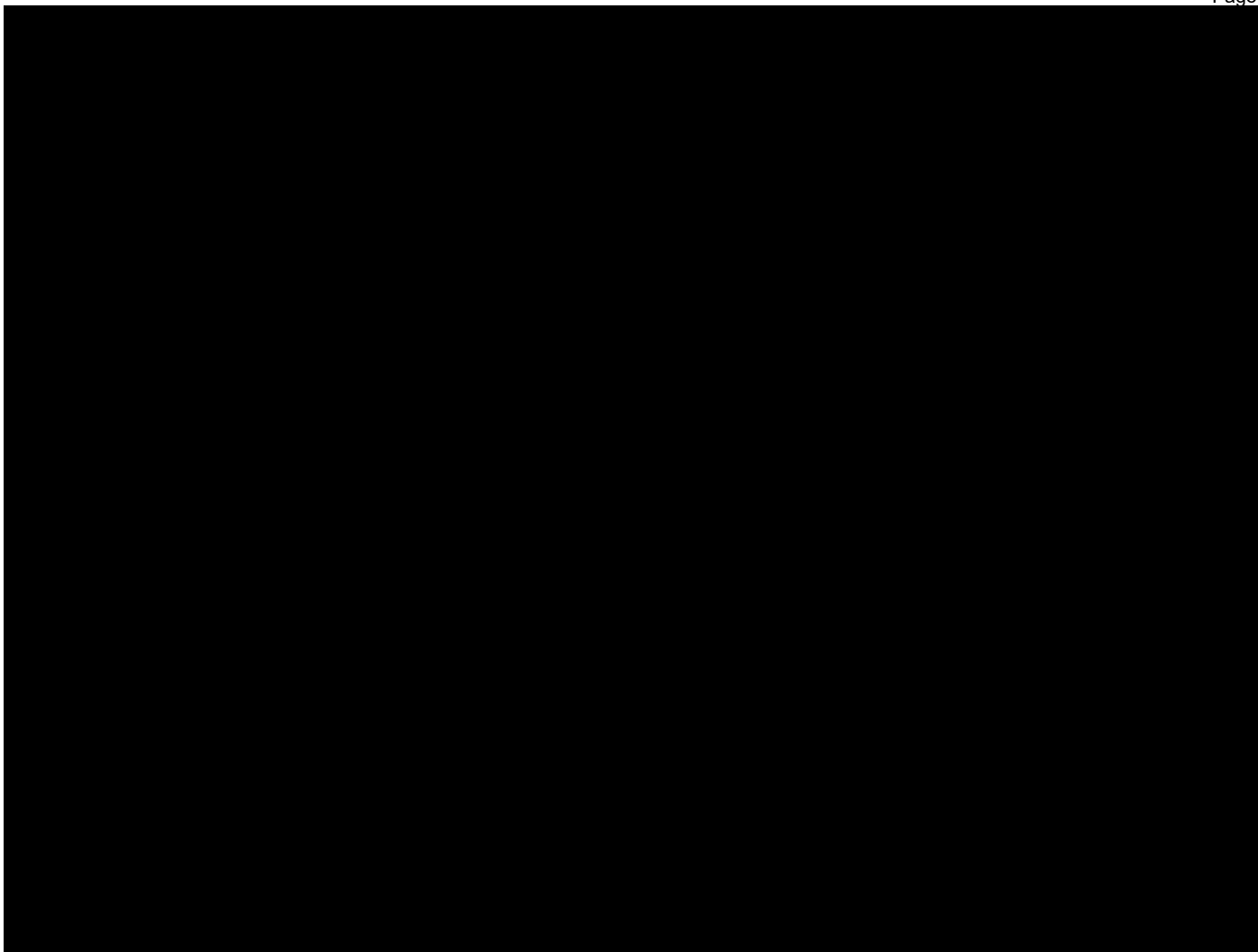












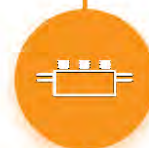


## Section 4 – Compliance, Legal Issues and Provincial Programs

## Compliance, Legal Issues and Provincial Programs Q3-2019 update

### LEGISLATIVE AMENDMENTS

- **Workplace Safety and Insurance Board** - changing how premium rates are calculated in September 2019 – effective January 1, 2020. Implementing the North American Industry Classification System (NAICS) used by StatsCan and CRA - moving from 155 rate groups to 34 rate classes. Rates will be based on a combination of: company's risk profile and share of responsibility to maintain the insurance fund; how individual claim history compares to other businesses in the rate class; insurable earnings, claims costs and number of allowed claims over a 6 year period; and a predictability factor - using past performance to predict future outcomes
- We received notice of new rate classes which incorrectly classified Hydro Ottawa companies in the nuclear and transmission businesses; requested review by WSIB to classify in accordance with business lines; as a result, potential impact on WSIB premiums not known at this time

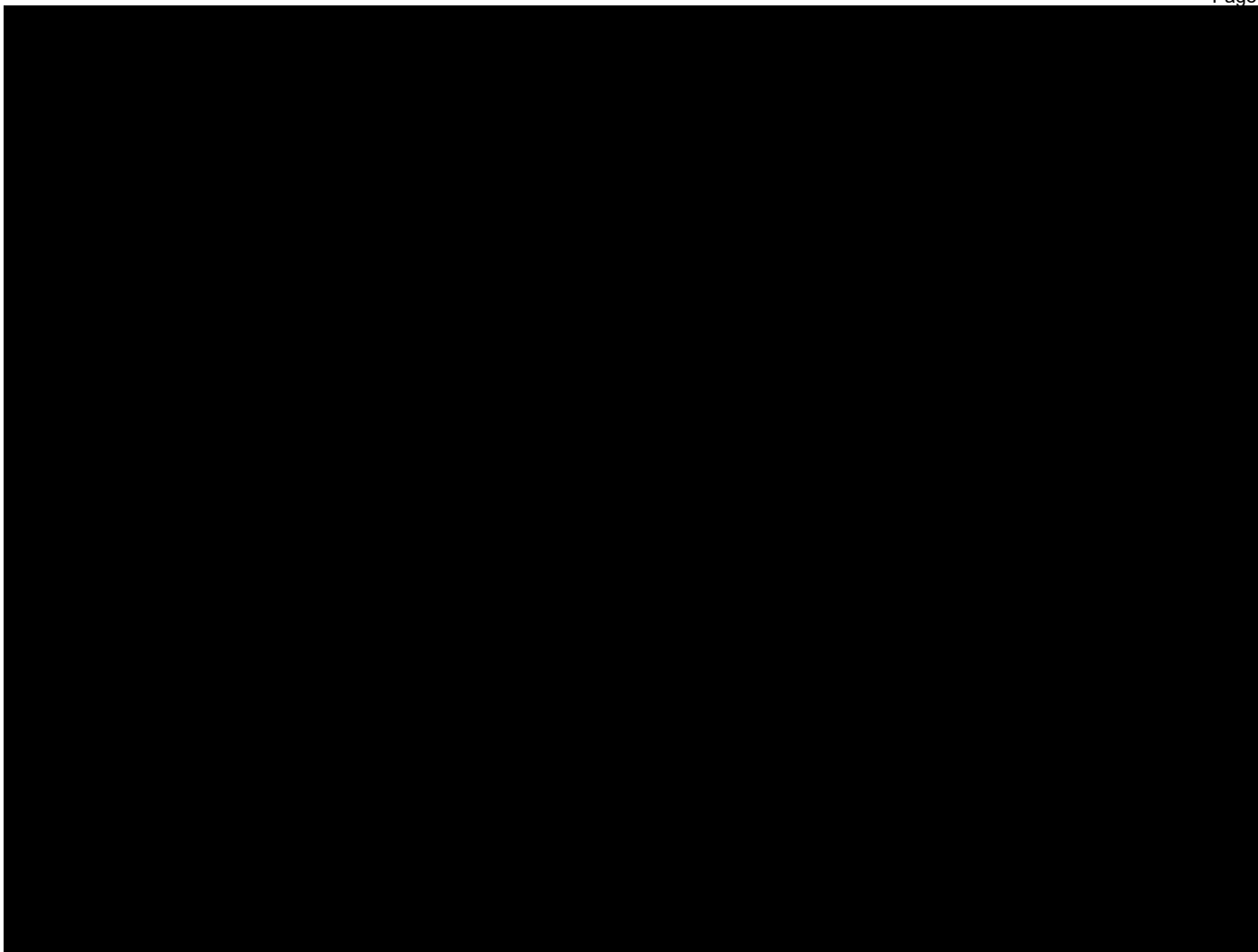


### COMPLIANCE

- In June, the OEB compliance office informed Hydro Ottawa of alleged compliance issues with certain OEB-prescribed Collection Notice timelines and content. While this inquiry has not concluded, the OEB requested HOL to provide further information on October 21<sup>st</sup>. Potential outcomes are not expected to be financially material

### PROVINCIAL

- The OEB refreshed its policy consultation on Utility Remuneration and Responding to DERs. Hydro Ottawa participated in a stakeholder forum hosted by OEB to explore the proper scope and objectives for the consultation
- In September, the Ministry of Energy, Northern Development, and Mines finalized two regulations governing bill presentment and on-bill messaging for the on-bill rebate scheduled to take effect on November 1
- The OEB initiated a review of its policies related to DER connections by distributors





**Section 5 – Progress Against  
Plan – Corporate Performance  
Scorecard**

## Financial Strength – Year to Date Results Q3 2019

### Corporate Performance Goals And Priorities

Enterprise Strategic Objective	We will create sustainable growth in our business and our earnings By improving productivity and pursuing business growth opportunities that leverage our strengths – our core capabilities, our assets and our people	
Enterprise Strategic Outcome	Growth in shareholder value	
2019 Corporate Performance Goals and Supporting Priorities		Assessment ● ▲ X
1. Grow revenues from new sources		
b. Distribution		●
i. Continue to approach other LDCs in Ontario regarding potential acquisition/mergers/partnerships		
ii. Continue to expand our distribution system through acquisition of customer-owned assets (e.g. Ottawa International Airport, DND Uplands)		●
d. Other ancillary services that leverage Hydro Ottawa's brand and competitive advantage in the industry		●
i. Electrical service and construction offerings - emergency repair and replacement of customer-owned distribution assets, meter services for other entities such as OPG, distribution sub-station services to other LDCs and private businesses, forestry services		
ii. Regional Training		
aa. Continue development and implementation of all levels of Training Delivery Agent Status Powerline Technician training and certification with Algonquin College		●
bb. Continue to market and enhance training services to other LDCs / contractors		▲

[illegible]

## Financial Strength – Year to Date Results Q3 2019

### Corporate Performance Measures And Targets

Enterprise Strategic Objective	<p>We will create sustainable growth in our business and our earnings  <i>By improving productivity and pursuing business growth opportunities that leverage our strengths, our core capabilities, our assets and our people</i></p>								
Enterprise Strategic Outcome	Growth in shareholder value								
2019 Corporate Performance Measures	2014A CGAAP	2015A IFRS	2016A IFRS	2017A IFRS	2018A IFRS	2019T IFRS	Q3 YTD Target IFRS	Q3 YTD Actual IFRS	Q3 YTD Assessment ▲X

## HOL Financial Strength – Year to Date Results Q3 2019

### Corporate Performance Measures And Targets

Enterprise Strategic Objective	We will create sustainable growth in our business and our earnings By improving productivity and pursuing business growth opportunities that leverage our strengths, our core capabilities, our assets and our people								
Enterprise Strategic Outcome	Growth in shareholder value								
2019 HOL Performance Measures	2014A CGAAP	2015A IFRS	2016A IFRS	2017A IFRS	2018A IFRS	2019T IFRS	Q3 YTD Target IFRS	Q3 YTD Actual IFRS	Q3 YTD Assessment ●●●
Net Income	\$27.9M	\$35.5M	\$34.3M	\$36.5M	\$37.2M	\$34.9M	\$25.7M	\$26.6M	●
Revenue (excl CDM) <sup>1</sup>	\$168.5M	\$172.8M	\$182.0M	\$187.1M	\$199.2M	\$208.7M	\$157.1M	\$155.7M	×
OM&A - Net (excl CDM) <sup>1</sup>	\$86.0M	\$84.5M	\$87.9M	\$87.5M	\$95.1M	\$96.4M	\$73.9M	\$77.8M	×
Return on Equity	10.1%	12.1%	11.0%	11.1%	10.7%	9.4%	9.4%	10.0%	●
Cash Flow from Operations <sup>2</sup>	\$94.3M	\$69.0M	\$78.0M	\$78.3M	\$114.3M	\$110.3M	\$72.4M	\$55.3M	×
CAPEX									
System Renewal and Service (excl Plant Failure) <sup>3</sup>	\$74.0M	\$54.5M	\$57.3M	N/A	N/A	N/A	N/A	N/A	N/A
Plant Failure <sup>3</sup>	N/A	N/A	\$7.8M	N/A	N/A	N/A	N/A	N/A	N/A
General (incl Facilities Renewal Program) <sup>3</sup>	\$15.7M	\$10.2M	\$15.7M	N/A	N/A	N/A	N/A	N/A	N/A
Cumulative Capital Additions									
General Plant	N/A	N/A	N/A	\$31.0M	\$37.9M	\$39.8M	\$39.8M	\$49.5M	●
System Renewal & Service	N/A	N/A	N/A	\$116.0M	\$186.4M	\$220.0M	\$220.0M	\$235.7M	●
Labour Allocation to CAPEX	60%	61%	62%	60%	58%	60%	60%	58%	×
Debt to Capitalization Ratio <sup>4</sup>	N/A	N/A	N/A	N/A	N/A	65%	64.7%	67.0%	×
CDM – Cumulative GWh reduction <sup>5</sup>	415 GWh	78 GWh	90 GWh	276 GWh	324 GWh	375 GWh	N/A	N/A	N/A

<sup>1</sup> In 2016, these measures were modified to exclude CDM

<sup>2</sup> In 2016 & 2017, Cash flow from Operations on financial statement includes reclassifications of deferred revenue and customer deposits, the actual results are based on the previous reporting method to compare to the target, starting 2018, result was aligned with financial statement reporting

<sup>3</sup> In 2016, Plant Failure was added as a separate measure and excluded from the overall CAPEX measure

<sup>4</sup> New measure added in 2019

<sup>5</sup> 2015 and 2016 are annual reductions not cumulative. 2015, 2016, and 2017 results restated based on IESO confirmed results received in subsequent years. Announced on March 2019, LDCs will no longer receive incentive payments for achieving assigned targets for electricity savings

## Customer Value – Year to Date Results Q3-2019

### Corporate Performance Goals and Priorities

<b>Enterprise Strategic Objective</b>	<b>We will deliver value across the entire customer experience</b> <i>By providing reliable, responsive and innovative services at competitive rates</i>	
<b>Enterprise Strategic Outcome</b>	<b>Customer loyalty</b>	
<b>2019 Corporate Performance Goals and Supporting Priorities</b>		<b>Assessment</b> ●●●X
<b>3. Assist customers in managing their energy consumption and electricity costs</b>		
<b>a. CDM</b> – Continue to deliver a range of CDM programs that are customer-centric, cost effective and generate strong GWh results, e.g.		<b>X</b>
i. Residential Programs including Hydro Ottawa's app		
ii. Commercial Programs including Small Business Lighting and building retrofit		<b>X</b>
<b>b. Electricity Support Programs</b> – Continue to manage the provincial program(s) that provide ongoing financial assistance to qualifying low-income electricity consumers including		●
i. Ontario Electricity Support Program (OESP)		●
ii. Low-Income Energy Assistance Program (LEAP)		●
iii. Affordability Trust		
<b>c. Customer Education Program</b> – Continue to increase understanding of the industry and Hydro Ottawa's role and achievements within it; demystify and educate by leveraging multiple modes (digital and social media, video, open houses, workshops, etc.) and multiple channels (local media, Councillors, subject matter experts, executive and senior management)		●
<b>d. Energy Innovation Projects</b> – Actively pursue and participate in innovation projects to identify new energy saving product/service offerings for our customers		<b>X</b>
i. Great Demand Response Project (IESO Smart Grid funding in partnership with industry and academia, e.g. Ottawa and Gloucester Community Housing, Ottawa U, Panasonic, Tabouchi)		●
ii. EV Support Equipment Manifold (EVSEM) - charging infrastructure pilot project for constrained urban environments (pending funding by NRCAN)		●
iii. EV Innovation Development/Deployment (EVID) – working with local taxi company to facilitate the charging infrastructure for an electric taxi fleet (pending funding from NRCAN)		●
iv. Distributed Energy Resources – continue to monitor and engage on opportunities		●

## Customer Value – Year to Date Results Q3-2019

### Corporate Performance Goals and Priorities

<b>Enterprise Strategic Objective</b>	<b>We will deliver value across the entire customer experience</b> <i>By providing reliable, responsive and innovative services at competitive rates</i>	
<b>Enterprise Strategic Outcome</b>	<b>Customer loyalty</b>	
<b>2019 Corporate Performance Goals and Supporting Priorities</b>		<b>Assessment</b> ● ▲ X
<b>4. Deliver on customer expectations for service quality and responsiveness</b>		
<b>a. Improve Customer Service</b> – Implement the ‘whole of company’ Customer Experience (Cx) Strategy and Roadmap with a focus on modernization, customer communications and customer self-serve:		▲
i. <b>Change Management Plan</b> – Implement the multi-year change management plan to align people and organization to the Cx Strategy and Roadmap, with a focus on increasing organization-wide awareness, support and alignment for a customer-centric culture consistent with the Organizational Culture Strategy		●
ii. <b>New Service / Product Offerings</b> – Work with existing customers to define and tailor product/service offerings, e.g. EV and energy storage solutions		●
iii. <b>Regulatory</b> : e.g. provincial programs, migration to fixed rate and C1 class customers to HOEP		●
iv. <b>Customer Touchpoint Improvements</b> –		
aa. Outage communications – Incorporate technology solutions to support outbound outage reporting across multiple channels / app & SMS		●
bb. Annual Go Paperless campaign		
cc. Hydro Ottawa app engagement campaign		●
v. <b>Understanding Customers</b> – Implement systems and processes to support a 1:1 conversation with customers		
aa. <b>Customer Preference Dashboard</b> (database) – continue development of interface to centralize customer data points to support targeted and personalized communications		●
bb. <b>Marketing Automation Platform</b> – extend solution to automate and provide insightful analytics of marketing campaigns and communications for HOL		●
cc. <b>Email Management Platform</b> – Implement email management solution to streamline routing of customer communications		●
dd. <b>Strategic Account Management Plan</b> – Continue relationship building with, and develop of product offerings for, key accounts, developers and contractors; capture market intelligence, improve internal collaboration, increase customer value and create trusted advisor role		●
ee. <b>Business Intelligence</b> – Leverage Tableau Reporting tool to allow us to better target customer segments for different program / service offerings		●
vi. <b>Technology and Process Enhancements</b>		
aa. <b>Website</b> – Upgrade external websites		●
bb. <b>Enterprise Communications Platform</b> - Leverage platform functionality for multi-channel communication (voice, text, email, chat, etc.)		●

## Customer Value – Year to Date Results Q3-2019

### Corporate Performance Goals and Priorities

Enterprise Strategic Objective	We will deliver value across the entire customer experience <i>By providing reliable, responsive and innovative services at competitive rates</i>	
Enterprise Strategic Outcome	Customer loyalty	
2019 Corporate Performance Goals and Supporting Priorities		Assessment ● ▲ ✖
5. Maintain overall distribution system reliability		
a. Smart Grid – Continue implementation of grid transformation and modernization projects including		●
i. New SCADA system - implement additional modules		
ii. [REDACTED]		
b. Maintain or enhance our best in class reliability metrics		●
c. Continue our improvements in maintenance and capital program execution – Emphasis on workforce scheduling and contractor management; Complete all budgeted programs / plans on time and within budget		●
i. Distribution System Renewal and Service (Sustainment Capital Program) – Ongoing implementation of refurbishment and enhancement programs with particular emphasis on aging infrastructure, areas with chronic reliability issues, and on station capacity		●
ii. Distribution System Access (Demand Capital Program) – Ongoing implementation of new residential and commercial customer connections, system expansions, and third party driven plant relocations and upgrades		
iii. Distribution Testing, Inspection and Maintenance Programs – Ongoing implementation of distribution system and station asset evaluations (testing and inspections of poles, cables, manhole chambers and switches); forestry program execution		▲

## Customer Value – Year to Date Results Q3-2019

### Corporate Performance Measures and Targets

Enterprise Strategic Objective	We will deliver value across the entire customer experience By providing reliable, responsive and innovative services at competitive rates								
Enterprise Strategic Outcome	Customer loyalty								
2019 Corporate Performance Measures	2014A	2015A	2016A	2017A	2018 A	2019T	Q3 YTD Target	Q3 YTD Actual	Q3 YTD Assessment
<b>SATISFACTION</b>									
Residential & Small Commercial Annual Satisfaction Survey	HO/ON Pre83%/83% Post89%/80%	HO/ON Pre 87%/86% Post85%/83%	HO / ON Pre81%/81 Post77%/74%	HO / ON Pre90%/85% Post87%/81%	HO / ON Pre 94%/91% Post 93%/89%	≥91%	Annual Metric	Annual Metric	Annual Metric
Large Commercial Annual Satisfaction Survey	N/A	N/A	N/A	90%	HO / ON Pre 94%/93% Post 95%/93%	≥85%	Annual Metric	Annual Metric	Annual Metric
Call Centre Monthly Transaction Survey	88%	90%	89%	87%	78%	≥90%	≥90%	88%	X
Ability to deal with issues (First Call Resolution)	84%	85%	85%	84%	86%	≥86%	≥85%	90%	●
Complaints – Total Number	140	124	106	71	182	≤120	≤90	16	●
Complaints – At Fault	N/A	N/A	N/A	N/A	N/A	≤20 <sup>2</sup>	≤15	4	●
<b>VALUE</b>									
Number of hydrotawa.com sessions <sup>1</sup>	1,047,749	1,267,505	3,170,766	6,088,429	6,623,907	>2,500,000	>1,875,000	2,136,682	●
Number of MyAccount customers	122,300	136,890	158,112	167,114	184,067	>186,000	>185,517	196,600	●
Number of e-bill accounts	85,991	102,007	123,801	134,761	150,991	>160,000	>157,748	163,075	●
Number of Auto pay accounts	46,098	48,751	51,520	54,789	63,014	>70,000	>68,254	67,934	X
Number of App Registrants (Downloads)	N/A	N/A	N/A	12,519	24,363	>30,000	>28,591	32,308	●
Number of Mobile App Sessions <sup>1</sup>	N/A	N/A	N/A	8,585		>130,000	>97,500	36,592	X
Number of Twitter Followers <sup>1</sup>	7,630	10,825	12,976	15,687	33,293	>40,000	>38,323	35,919	X
Number of Facebook Followers <sup>1</sup>	N/A	482	2,006	3,039	7,292	>8,500	>8,198	8,153	X
Number of LinkedIn Followers <sup>1</sup>	N/A	2,500	3,358	4,892	6,274	>6,200	>5,873	7,737	●

<sup>1</sup> These metrics were moved from Corporate Citizenship Scorecard to Customer Value Scorecard

## Customer Value – Year to Date Results Q3-2019

### Corporate Performance Measures and Targets

Enterprise Strategic Objective	We will deliver value across the entire customer experience <i>By providing reliable, responsive and innovative services at competitive rates</i>								
Enterprise Strategic Outcome	Customer loyalty								
2019 Corporate Performance Measures	2014A	2015A	2016A	2017A	2018A	2019T	Q3 YTD Target	Q3 YTD Actual	Q3 YTD Assessment
<b>PRODUCT RELIABILITY</b>									
SAIFI – Average Number of Times that Power to a Customer is Interrupted 5 year average <sup>1</sup> <del>3-year average</del> <sup>4</sup>	0.99 <del>1.12</del>	0.97 <del>0.99</del>	0.89 <del>0.80</del>	0.82 <del>0.80</del>	0.73 <sup>4</sup>	≤0.75	≤0.75	0.74	●
SAIFI – Average Number of Times that Power to a Customer is Interrupted Annual excluding LOS and MEDs <sup>2</sup> Annual including LOS and MEDs <sup>3</sup>	0.74 0.86	0.72 0.75	0.69 0.78	0.79 0.87	0.78 1.78	≤0.75 N/A <sup>3</sup>	≤0.59 N/A <sup>3</sup>	0.58 0.86	●
SAIDI – Average Number of Hours that Power to a Customer is Interrupted 5 year average <sup>1</sup> <del>3-year average</del> <sup>4</sup>	1.07 <del>1.51</del>	1.13 <del>1.46</del>	1.09 <del>1.29</del>	1.10 <del>1.29</del>	0.99 <sup>4</sup>	≤1.00	≤1.00	0.96	●
SAIDI – Average Number of Hours that Power to a Customer is Interrupted Annual excluding LOS and MEDs <sup>2</sup> Annual including LOS and MEDs <sup>3</sup>	1.08 1.59	1.08 1.15	1.00 1.13	1.19 1.58	0.85 22.724	≤1.00 N/A <sup>3</sup>	≤0.79 N/A <sup>3</sup>	0.53 0.95	●
FEMI (Feeders Experiencing Multiple Interruptions) – Number of feeders with 10 or more interruptions per year	8	9	5	15	10	≤12	≤12	8	●

<sup>1</sup> Excludes Loss of Supply and Major Event days, previously this measure was a three year average, however both industry and the OEB reports on a 5 year average, as of 2018 only 5 year average reported

<sup>2</sup> LOS = Loss of Supply, MED = Major Event Days

<sup>3</sup> No target set for SAIFI and SAIDI including LOS and MEDs

<sup>4</sup> Value previously reported for 2018 SAIFI 5 year average of 0.93 and 2.05 for SAIDI were incorrect

## Organizational Effectiveness – Year to Date Results Q3-2019

### Corporate Performance Goals and Priorities

Enterprise Strategic Objective	<b>We will achieve performance excellence</b> <i>By cultivating a culture of innovation and continuous improvement</i>	
Enterprise Strategic Outcomes	<ul style="list-style-type: none"> <li>• <i>Efficient and effective operations</i></li> <li>• <i>Safe and healthy work environment</i></li> <li>• <i>Engaged, aligned and prepared workforce</i></li> </ul>	
2019 Corporate Performance Goals and Supporting Priorities		Assessment ●▲×
6. Continue to enhance operational performance and productivity		

## Organizational Effectiveness – Year to Date Results Q3-2019

### Corporate Performance Goals and Priorities

Enterprise Strategic Objective	We will achieve performance excellence <i>By cultivating a culture of innovation and continuous improvement</i>	
Enterprise Strategic Outcomes	<ul style="list-style-type: none"> <li>• <i>Efficient and effective operations</i></li> <li>• <i>Safe and healthy work environment</i></li> <li>• <i>Engaged, aligned and prepared workforce</i></li> </ul>	
2019 Corporate Performance Goals and Supporting Priorities		Assessment ●▲×
6. Continue to enhance operational performance and productivity		

## Organizational Effectiveness – Year to Date Results Q3-2019

### Corporate Performance Goals and Priorities

Enterprise Strategic Objective	We will achieve performance excellence By cultivating a culture of innovation and continuous improvement	
Enterprise Strategic Outcomes	<ul style="list-style-type: none"> <li>Efficient and effective operations</li> <li>Safe and healthy work environment</li> <li>Engaged, aligned and prepared workforce</li> </ul>	
2019 Corporate Performance Goals and Supporting Priorities		Assessment ● ▲ ✖
5. Continue to enhance operational performance and productivity (continued)		
f. <b>Facilities Renewal Program</b> - Advance the implementation of the Board approved plan to replace the end of life main office and the south and east operations centres with purpose built facilities which will address location, energy efficiency, employee engagement, etc.		●
i. Complete the design build of the Administration building and the East and South Operations Centres, operational integration and migration, regulatory case preparation, and property disposition		
7. Maintain leading health and safety record		
a. <b>Occupational Health, Safety and Environment (OHSE) Management System</b>		●
i. Maintain registration of OHSE management system and prepare for update to new ISO 45001 standard (replacing OHSAS 18001)		●
ii. Complete required OHSE training		●
iii. [REDACTED]		[REDACTED]
iv. Continue implementation of OHSE Targeted Action Plan		●
v. Renew physical demands analysis for positions requiring significant physical effort		▲

## Organizational Effectiveness – Year to Date Results Q3-2019

### Corporate Performance Goals and Priorities

Enterprise Strategic Objective	We will achieve performance excellence <i>By cultivating a culture of innovation and continuous improvement</i>	
Enterprise Strategic Outcomes	<ul style="list-style-type: none"> <li>• <i>Efficient and effective operations</i></li> <li>• <i>Safe and healthy work environment</i></li> <li>• <i>Engaged, aligned and prepared workforce</i></li> </ul>	
2019 Corporate Performance Goals and Supporting Priorities		Assessment ▲▲▲
8. Continue to enhance organizational and employee capability		
a. Union Management Relations –		
i. Application for certification by SEP for representation at HOL		-

## Organizational Effectiveness – Year to Date Results Q3-2019 Corporate Performance Measures and Targets

Enterprise Strategic Objective	We will achieve performance excellence By cultivating a culture of innovation and continuous improvement								
Enterprise Strategic Outcomes	<ul style="list-style-type: none"> <li>Efficient and effective operations</li> <li>Safe and healthy work environment</li> <li>Engaged, aligned and prepared workforce</li> </ul>								
2019 Corporate Performance Measures	2014A	2015A	2016A	2017A	2018A	2019T	Q3 YTD Target	Q3 YTD Actual	Q3 YTD Assessment
OM&A per customer - HOL only (excl CDM) <sup>1</sup>	\$269	\$261	\$268	\$264	\$284	≤\$284	≤\$219	\$230	X
Revenue per employee (excl CDM) <sup>2</sup>	\$0.32M	\$0.31M	\$0.32M	\$0.34M	\$0.379M	≥\$0.38M	≥\$0.286M	\$0.300M	•

<sup>1</sup> In 2016, this measure was modified to exclude CDM

<sup>2</sup> In 2016, these measures were modified to exclude CDM & Street Lighting, and in 2019 the measure was modified to exclude CDM only, streetlighting included in Envari base revenue

## Organizational Effectiveness – Year to Date Results Q3-2019

### Corporate Performance Scorecard

Enterprise Strategic Objective	We will achieve performance excellence By cultivating a culture of innovation and continuous improvement
Enterprise Strategic Outcomes	<ul style="list-style-type: none"> <li>Efficient and effective operations</li> <li>Safe and healthy work environment</li> <li>Engaged, aligned and prepared workforce</li> </ul>

Measures							Description	2014A	2015A	2016A	2017A	2018A	2019 Target	Q3 Target	Q3 Actual	
Labour Utilization	Productive Time	% of Billable Hours / Total Regular Hours	71%	74%	74%	73%	72%	≥ 74%	74%	73%	X	Below target, same result as prior year. Over 3,000 hours reported on office move administrative work order				
	Labour Allocation to CAPEX	% of Labour Time on Capital Activities / Total Productive Time	60%	61%	62%	60%	58%	≥ 60%	60%	58%	▲	Improved from Q2 by 1%, YTD below target due to more WFO instead of capital work (i.e. flood mitigation for Portage)				
	Average Sick Days per FTE (annualized)	Total Sick Days / Total Employees	5.9	6.3	5.9	6.0	7.1	≤ 6.0	6.3	8.1	X	Exceeded target and prior year. There has been a 9% decrease in the number of employees taking sick leave YTD versus 2018. However, there has been a 18% increase in the number of days taken. 23 employees accounted for 45% of the total sick leave taken YTD				
	e-Learning Training per employee (annualized)	Number of hours of e-learning / Total Employees	N/A	N/A	N/A	1.0	1.8	≥ 2.0	2.0	2.5	●	Achieved target. Increase in Q3 due to the cybersecurity e-learning				
OM&A	Bad Debt as a % of Total Electricity Revenue	Bad Debt / Total Electricity Revenue	0.18%	0.01%	0.13%	0.20%	0.13%	≤ 0.12%	≤ 0.12%	0.06%	●	Below target and reached lowest level in 4 years. The positive result is attributable to 1) steady increase in Autopay; 2) increased usage of auto-dialer - 66% of customers called made payments				
Asset Efficiency	Technology Infrastructure Cost per Employee	(External IT support costs + computer hardware & software depn) / # of FTE	\$21.5K	\$23.3K	\$24.4K	\$22.8K	\$26.5K	≤ \$24.9K	≤ \$24.6K	\$22.9K	●	Below target and prior year due to decrease in depreciation. The CC&B Upgrade extended the current asset life, therefore lower depreciation				
Profitability Metrics	EBITDA as a % Revenue *															
		EBITDA \$ / Total Revenue - Hydro Ottawa Limited	44%	46%	52%	53%	54%	≥ 54%	53%	50%	X	Below target and prior year. Lower EBITDA due to lower distribution revenue (CCA tax benefit returned to rate payers resulting in reduced revenue but offset below EBITDA) and higher expenses (leak remediation costs and one-time facilities costs)				
	Inventory Turnover Ratio and Value	Cost of Materials Used / Average Inventory	1.83	1.73	2.27	1.93	1.55	≥ 2.00	≥ 1.95	1.55	▲	Improved from prior year and last quarter, but still below target. Q3 turn rate was up due to increased issues in August, but deferred start dates for other projects mean on-hand inventory remains high				

## Corporate Citizenship – Year to Date Results Q3-2019

### Corporate Performance Goals and Priorities

Enterprise Strategic Objective	We will contribute to the well being of the community <i>By acting at all times as a responsible and engaged corporate citizen</i>	
Enterprise Strategic Outcomes	<ul style="list-style-type: none"> <li>• <i>Leading governance and business practices</i></li> <li>• <i>Engaged stakeholders</i></li> <li>• <i>Safe, secure and environmentally responsible services</i></li> <li>• <i>Positive community impact</i></li> </ul>	
2019 Corporate Performance Goals and Supporting Priorities		Assessment ● ▲ ✕
9. Enhance our brand image in the community and the industry		

Enterprise Strategic Objective	<p>We will contribute to the well being of the community</p> <p><i>By acting at all times as a responsible and engaged corporate citizen</i></p>	
Enterprise Strategic Outcomes	<ul style="list-style-type: none"> <li>• <i>Leading governance and business practices</i></li> <li>• <i>Engaged stakeholders</i></li> <li>• <i>Safe, secure and environmentally responsible services</i></li> <li>• <i>Positive community impact</i></li> </ul>	
2019 Corporate Performance Goals and Supporting Priorities		Assessment ● ▲ ✕
9. Enhance our brand image in the community and the industry (continued)		
10. Improve our environmental performance and reduce our impact on the environment		

1. *Journal of Management Studies*, 1996, 33(1), 1-14.

## Corporate Citizenship – Year to Date Results Q3-2019

### Corporate Performance Measures And Targets

Enterprise Strategic Objective	We will contribute to the well being of the community <i>By acting at all times as a responsible and engaged corporate citizen</i>								
Enterprise Strategic Outcomes	<ul style="list-style-type: none"> <li>• <i>Leading governance and business practices</i></li> <li>• <i>Engaged stakeholders</i></li> <li>• <i>Safe, secure and environmentally responsible services</i></li> <li>• <i>Positive community impact</i></li> </ul>								
2019 Corporate Performance Measures	2014A	2015A	2016A	2017A	2018 A	2019T	Q3 YTD Target	Q3 YTD Actual	Q3 YTD Assessment



**INTERROGATORY RESPONSE - CCC-14**

**CCC-14**

EXHIBIT REFERENCE:

**(Ex. 1-1-9, p. 7)**

SUBJECT AREA: Customer Satisfaction

Please provide the results of the annual customer satisfaction survey for the years 2016-2019

**RESPONSE:**

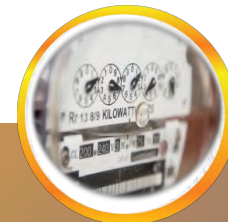
Results from the annual customer satisfaction surveys for the years 2016-2019 can be viewed in the following attachments to this interrogatory response, as well as in the one piece of pre-filed evidence noted in the list below:

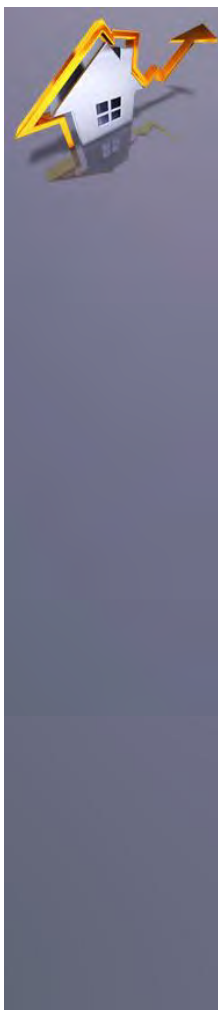
- Attachment CCC-14(A): Hydro Ottawa Residential and Small Commercial 2016 UtilityPULSE Report
- Attachment CCC-14(B): Hydro Ottawa Residential and Small Commercial 2017 UtilityPULSE Report
- Attachment CCC-14(C): Hydro Ottawa Large Commercial 2017 UtilityPULSE Report
- Attachment CCC-14(D): Hydro Ottawa Residential and Small Commercial 2018 UtilityPULSE Report
- Attachment 1-2-1(D): 2018 Customer Satisfaction Survey - Large Commercial
- Attachment CCC-14(E): Hydro Ottawa Residential and Small Commercial 2019 UtilityPULSE Report
- Attachment CCC-14(F): Hydro Ottawa Large Commercial 2019 UtilityPULSE Report

# Hydro Ottawa Limited

## 2016 Electric Utility Customer Satisfaction Survey

November 2016





**The purpose of this report is to profile the connection between Hydro Ottawa (Hydro Ottawa ) and its customers.**

The primary objective of the Electric Utility Customer Satisfaction Survey is to provide information that will support discussions about improving customer care at every level in your utility.

The UtilityPULSE Report Card® and survey analysis contained in this report do not merely capture state of mind or perceptions about your customers' needs and wants - the information contained in this survey provides actionable and measurable feedback from your customers.

This is privileged and confidential material and no part may be used outside of Hydro Ottawa Limited without written permission from UtilityPULSE, the electric utility survey division of Simul Corporation.

All comments and questions should be addressed to:

Sid Ridgley, UtilityPULSE division, Simul Corporation

Toll free: 1-888-291-7892 or Local: 905-895-7900

Email: [sidridgley@utilitypulse.com](mailto:sidridgley@utilitypulse.com) or [sridgley@simulcorp.com](mailto:sridgley@simulcorp.com)

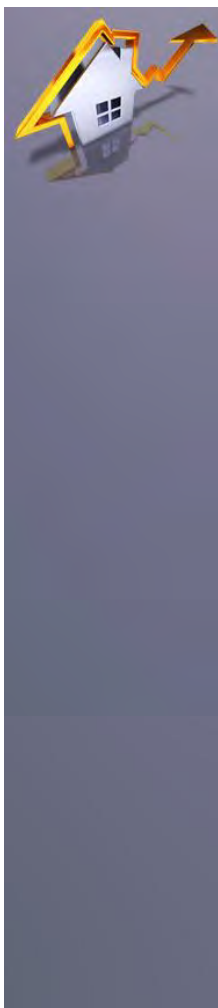


## Survey Observations & Insights

In the 18 years UtilityPULSE has been conducting research in Ontario's LDC market, we have not seen the residential/small commercial customer base as negative – and some would say angry – as it is right now. Over the past 8 weeks UtilityPULSE has completed 3,000+ Residential and Small Commercial customer surveys – satisfaction results are ugly. Though not news to your call-centre professionals, more customers are worried about the cost of electricity and more customers are finding it difficult to pay their bill. This survey does ask respondents to pick from 3 statements the one which best describes their ability to pay. In 2015, 59% [Ontario Benchmark] and 60% [Hydro Ottawa] selected *"Paying for electricity is not really a worry"*, in 2016 the numbers are 49% [Ontario Benchmark] and 58% for Hydro Ottawa.

Ability to pay is a highly correlated factor to overall satisfaction, and given the steep rise in electricity costs (those costs beyond the control of your LDC), satisfaction is dropping. It is clear industry events are affecting how customers see your LDC. Customers have told us, that despite spending money to assist in reducing consumption, their bill continues to go up. This double whammy is increasing the "worry" factor. We recommend that everyone at Hydro Ottawa remain professional and demonstrate empathy and as we know about human nature, worry can easily turn into a severe erosion of trust which then leads to anger.

Though your survey is about gathering the opinions of your customers, the reality is, erosion of trust in institutions in other sectors is contributing to the worry and angst factor your customers are experiencing – the

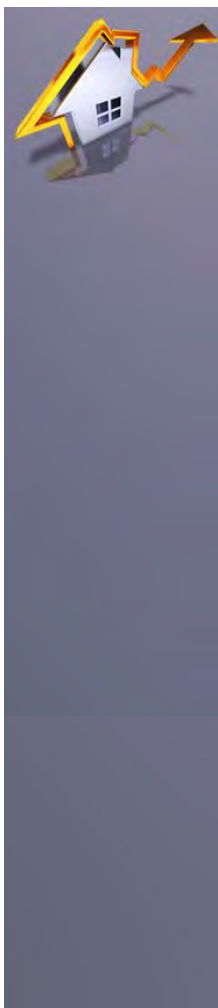


good news is 75% of Hydro Ottawa's customers agree your LDC is trusted and trustworthy. Today's heroes, when customers have problems or issues, are "everyday people" whose actions show that they understand and are doing everything in their power to solve the problem. We've said this to our clients many times: "where understanding stops, stress, irritation, anger and conflict begin."

Your survey was conducted from October 14 - November 8, 2016 and is based on one-on-one telephone interviews with individuals who pay or look after the electricity bill. Data for this report came from conducting a telephone interview with 603 of your residential and small commercial customers. In addition, survey findings for Hydro Ottawa have been enhanced with the inclusion of data from our UtilityPULSE database and the independently produced Ontario and National benchmarks.



Base: total respondents:  
 Top 2 Boxes: "Strongly agree + agree"



Despite a deteriorating environment for the electricity industry as a whole, i.e., satisfaction levels and concern over costs; survey respondents gave Hydro Ottawa excellent operational scores.

Operational Attributes			
	Hydro Ottawa	National	Ontario
<b>Provides consistent, reliable energy</b>	92%	89%	86%
<b>Quickly handles outages and restores power</b>	89%	86%	83%
<b>Accurate billing</b>	80%	80%	73%

Base: total respondents with an opinion

However, Hydro Ottawa representatives also did their part:

Representative Attributes			
	Hydro Ottawa	National	Ontario
<b>Deals professionally with customers problems</b>	81%	80%	75%
<b>Is 'easy to do business with'</b>	74%	78%	72%
<b>Customer-focused and treats customers as if they're valued</b>	71%	74%	75%

Base: total respondents with an opinion



Attributes strongly linked to Credibility & Trust			
	Hydro Ottawa	National	Ontario
<b>Keeps its promises to customers and the community</b>	71%	77%	73%
<b>Pro-active in communicating changes and issues affecting Customers</b>	72%	76%	80%
<b>Is a trusted and trustworthy company</b>	75%	79%	72%

Base: total respondents with an opinion

We have seen a social shift in the customer base, wherein there is a high expectation that they will be involved in the decisions affecting them. 89% of 1,269 Residential customers, polled throughout Ontario agree somewhat + agree strongly their LDC should solicit feedback about customer satisfaction.

Customer engagement is not about making customers “happy” with the costs or the service being provided by their LDC. Nor is customer engagement about making the industry regulator “happy”. The purpose of feedback from customers is to assist decision-makers as they make decisions about investments (capital and maintenance) and operational/service quality improvements.

Customer engagement is not about getting agreement (though it would be nice to do so), customer engagement is about ensuring there is an understanding of customer wants and needs; particularly when the possibility of an increase in cost is involved.

Utility Customer Centric Engagement Index (CCEI)			
	Hydro Ottawa	National	Ontario
<b>CCEI</b>	74%	78%	74%

Base: total respondents



Engagement is how customers think, feel and act towards the organization. Ensuring customers respond in a positive way requires they be rationally satisfied with the services provided AND emotionally connected to the LDC and its brand.

The Customer Experience Performance rating (CEPr) score is an effectiveness rating and is affected by many dimensions of service. Every touch point with customers on the phone, website or in-person influences what customers think and feel about the organization. While an excellent transaction today creates a positive experience today, the perception created is, future transactions will be excellent too.

Of course a negative transaction creates the perception, future transactions will be negative.



Customer Experience Performance rating (CEPr)			
	Hydro Ottawa	National	Ontario
<b>CEPr: all respondents</b>	80%	81%	77%

Base: total respondents

Customer satisfaction is one dimension for measuring the effectiveness of an enterprise. But focusing on customer satisfaction as a sole measure is not enough to gain a picture about how well an operating unit/enterprise might be doing. Customer satisfaction as a measure is an effectiveness measure (not an efficiency measure) on the historical relationship or delivery of services to customers.



*"Satisfaction happens when an enterprise's core services meet or exceed customer's needs, wants, or expectations."*

### Customer Satisfaction

SATISFACTION SCORES – Electricity customers' satisfaction			
Top 2 Boxes: 'very + fairly satisfied'	Hydro Ottawa	National	Ontario
PRE: Initial Satisfaction Scores	81%	86%	81%
POST: End of Interview	77%	84%	74%

Base: total respondents

### Customer Commitment

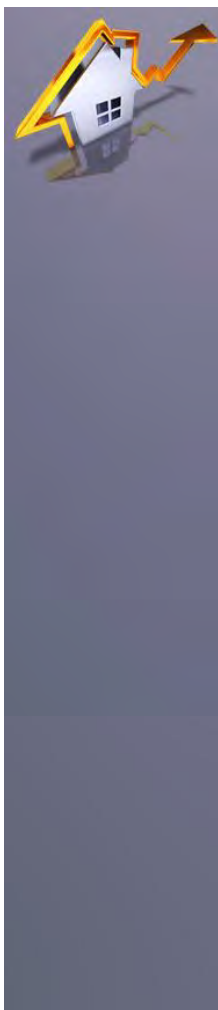
Electricity customers' loyalty – ... Is a company that you would like to continue to do business with			
	Hydro Ottawa	National	Ontario
Top 2 Boxes: 'Definitely + Probably' would continue	70%	75%	74%

Base: total respondents

### Customer Advocacy

Electricity customers' loyalty – ... is a company that you would recommend to a friend or colleague			
	Hydro Ottawa	National	Ontario
Top 2 boxes: 'Definitely + Probably' would recommend	61%	70%	64%

Base: total respondents



It could be said, some problems can actually anger customers. As a minimum, a problem is an inconvenience to the customers – and they want it solved/resolved. When the problem is solved with the first interaction (often called first call resolution) overall customer satisfaction can improve.

### Problems: Power Outages

Percentage of Respondents indicating that they had a Blackout or Outage problem in the last 12 months			
	Hydro Ottawa	National	Ontario
2016	31%	46%	46%
2015	30%	53%	51%
2014	29%	47%	49%
2013	28%	41%	35%
2012	35%	44%	46%

Base: total respondents

### Problems: Billing issues

Percentage of Respondents indicating that they had a Billing problem in the last 12 months			
	Hydro Ottawa	National	Ontario
2016	25%	15%	25%
2015	14%	9%	15%
2014	20%	16%	25%
2013	11%	8%	10%
2012	13%	12%	13%

Base: total respondents





## Customer Service

Satisfaction with Customer Service			
Top 2 Boxes: 'very + fairly satisfied'	Hydro Ottawa	National	Ontario
The time it took to contact someone	83%	74%	68%
The time it took someone to deal with your problem	72%	71%	65%
The helpfulness of the staff who dealt with you	81%	72%	69%
The knowledge of the staff who dealt with you	78%	74%	68%
The level of courtesy of the staff who dealt with you	86%	79%	79%
The quality of information provided by the staff who dealt with you	75%	70%	66%

Base: total respondents who contacted the utility

It would be a mistake to assume the numbers shown above are “call centre numbers”. The reality is, there are a tremendous number of non-call-centre employees who interact with customers – every day. Consequently how employees feel about their job responsibilities and role in the company will be communicated indirectly through the level of service which they actually provide customers. Engaged employees are the key to excellent customer care.

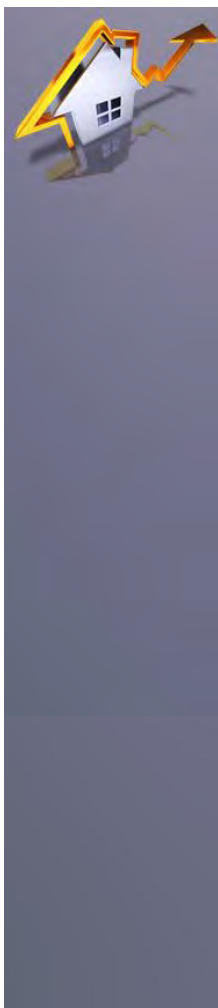
It is about being a knowledgeable professional and recognizing that it is the small things done consistently which matter: Things like greeting every customer, whether on the phone or in person, in a friendly and helpful manner. Things like listening to the customer's needs, providing solutions to their problems and showing appreciation to the customer for their business.



## UtilityPULSE Report Card®

Hydro Ottawa's UtilityPULSE Report Card®				
Performance				
	CATEGORY	Hydro Ottawa	National	Ontario
1	<b>Customer Care</b>	<b>B</b>	<b>B</b>	<b>C+</b>
	Price and Value	C	C+	C
	Customer Service	B+	B+	B+
2	<b>Company Image</b>	<b>B</b>	<b>B+</b>	<b>B</b>
	Company Leadership	B	B+	B
	Corporate Stewardship	B	B+	B
3	<b>Management Operations</b>	<b>A</b>	<b>A</b>	<b>A</b>
	Operational Effectiveness	B+	A	B+
	Power Quality and Reliability	A+	A	A
<b>OVERALL</b>		<b>B+</b>	<b>B+</b>	<b>B</b>

Base: total respondents



### Lowest scoring attributes

Low scoring attributes			
Top 2 Boxes: 'Strongly + Somewhat agree'	Hydro Ottawa	National	Ontario
Adapts well to changes in customer expectations	63%	71%	69%
Operates a cost effective electricity system	58%	67%	57%
Provides good value for your money	57%	65%	58%
Cost of electricity is reasonable when compared to other utilities	48%	58%	46%

Base: total respondents with an opinion

### Highest scoring attributes

High scoring attributes			
Top 2 Boxes: 'Strongly + Somewhat agree'	Hydro Ottawa	National	Ontario
Provides consistent, reliable electricity	92%	89%	86%
Makes electricity safety a top priority for employees and contractors	89%	87%	84%
Quickly handles outages and restores power	89%	86%	83%
Has a standard of reliability that meets expectations	88%	86%	84%

Base: total respondents with an opinion



## Use of Technology

Where will technology take us in the future? And more importantly, how do we feel it will continue to affect our future?

As customers increasingly demand greater empowerment, utilities seek to improve interactions and relationships in their entire operation by enhancing software capabilities for collaboration, gaining deeper customer and market insight and improving process management. Respondents were asked how important having online access to the following features was to them:

The effect of technological changes on people's lives will lead to a future that is ...	
Hydro Ottawa	
<b>Mostly better</b>	54%
<b>Mostly worse</b>	7%
<b>Neither</b>	30%
<b>Don't know</b>	8%

Base: total respondents

Importance of online access for the following features:	
Top 2 Boxes: 'very + somewhat important'	Hydro Ottawa
Reporting or inquiring about an issue	75%
Researching information about energy conservation	78%
Having a web chat feature on the website	49%
Automated alerts when electricity usage exceeds a prearranged threshold	69%
Review and pay your bill online (through utility's website)	74%
Power outage alerts	81%
Tools and calculators to help you manage your electricity consumption	66%
Comparison of your electricity consumption with your neighbours	49%
Automated alert to predict your upcoming bill	58%
Automated alert to remind you of your bill due date	62%

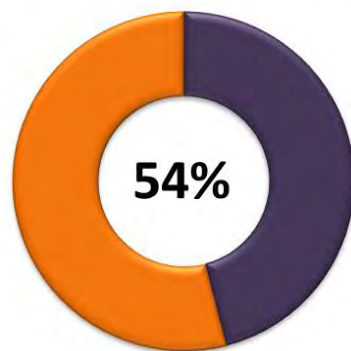
Base: total respondents



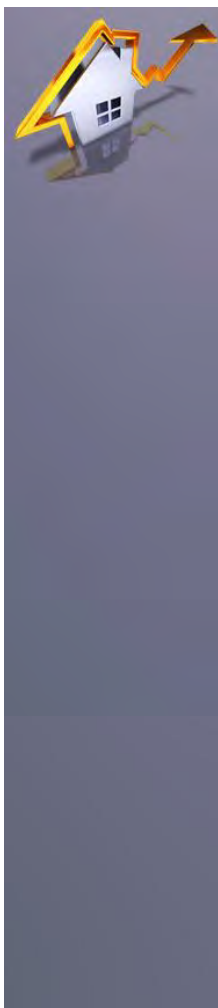
### Confidence in the Industry

Respondents have a perception about the electricity industry as a whole. That image influences how people (customers) think and feel about various industry participants. Confidence represents a filter that affects customers' perception about their LDC. For example on the subject of customer satisfaction, the UtilityPULSE database shows those survey respondents who had high confidence levels scored 15% higher than those who had low confidence. This variance has little to do with the actual numbers or facts about the LDCs performance.

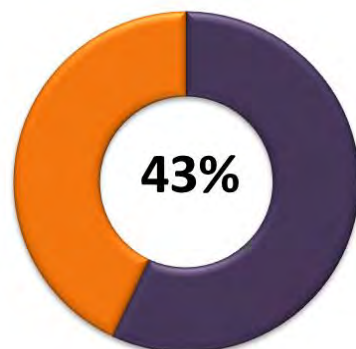
**'Customers are well served by the electricity system in Ontario' – do you agree?** Base: total respondents



- 54% Agree ('strongly + somewhat') customers are well served by the electricity system in Ontario
- 7% neither agree nor disagree
- 35% Disagree ('strongly + somewhat') they are well served
- 4% did not render an opinion or did not know

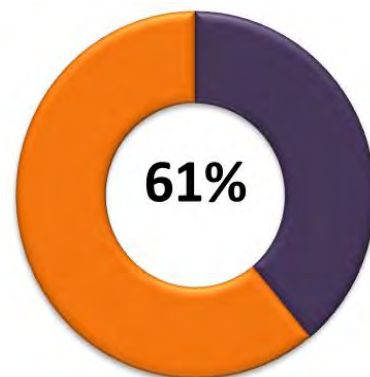


**‘Customers are confident in the electricity industry’s ability to meet their future expectations regarding quality, reliability and price’ – do you agree?** Base: total respondents



- 43% Agree (‘strongly + somewhat’) customers are confident that the electricity industry has the ability to meet future expectations regarding quality, reliability and price
- 9% neither agree nor disagree
- 45% Disagree (‘strongly + somewhat’) that the industry can deliver on future expectations
- 3% did not render an opinion or did not know

**‘Customers are confident in the electricity industry’s ability to keep up with technological changes’ – do you agree?** Base: total respondents



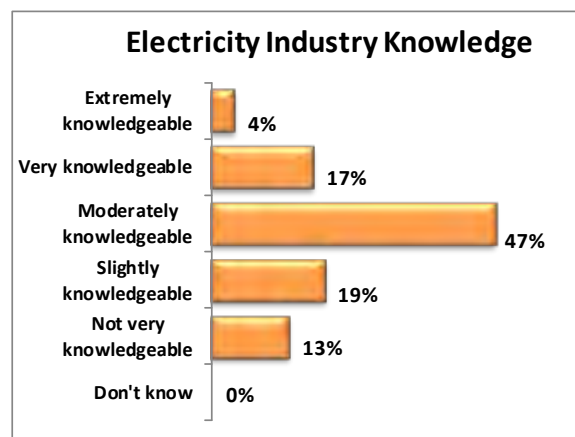
- 61% Agree (‘strongly + somewhat’) customers are confident that the electricity industry is able to keep up with technological changes
- 8% neither agree nor disagree
- 26% Disagree (‘strongly + somewhat’) that the industry will keep up with changing technology
- 5% did not render an opinion or did not know



### Electricity Industry Knowledge

21% of respondents for Hydro Ottawa described themselves as Extremely or Very knowledgeable about the electric utility industry. 47% claim they are moderately knowledgeable.

Approximately 1 in 5 (20%) survey participants in the UtilityPULSE database describe themselves as Extremely knowledgeable or Very knowledgeable. Only 46% of this knowledgeable group said they agree 'strongly + somewhat' customers were well served by the electricity system.



Base: total respondents

Approximately 1 in 3 survey respondents describe themselves in the bottom 2 categories of knowledge, and 50% of this group said they agree 'strongly + somewhat' customers are well served.

The data is clear; those that considered themselves more knowledgeable are also much less likely to say they have confidence in the industry to meet their needs and in the industry's ability to keep up with technology. Being knowledgeable is not necessarily a path to better appreciation of the electricity industry.



### Loyalty Groups

Customer Loyalty Groups				
Hydro Ottawa	Secure	Favorable	Indifferent	At Risk
<b>2016</b>	15%	10%	56%	19%
<b>2015</b>	15%	8%	63%	14%

Base: total respondents

For 18 years, the highest factor correlated to satisfaction is ability to pay.

### Paying for electricity

Is paying for electricity a worry or a major problem?				
	Not a worry	Sometimes	Often	Depends
<b>Hydro Ottawa</b>	58%	25%	14%	2%
<b>National</b>	58%	29%	10%	2%
<b>Ontario</b>	49%	31%	16%	3%

Base: total respondents



### Numbers at a Glance

	Hydro Ottawa	National	Ontario
<b>Customer Satisfaction: Initial</b>	81%	86%	81%
<b>Customer Satisfaction: Post</b>	77%	84%	74%
<b>Overall Satisfaction with most recent experience</b>	79%	73%	58%
<b>Customer Experience Performance Rating (CEPr)</b>	80%	81%	77%
<b>Customer Centric Engagement Index (CCEI)</b>	74%	78%	74%
<b>Credibility &amp; Trust Index</b>	77%	79%	76%
<b>UtilityPulse Report Card®</b>	B+	B+	B

We've often been asked: "What does it take to be seen as having great customer service?" Our answer continues to be "have genuine empathy for customers." If you and your fellow employees don't have it, then your organization will not achieve the highest levels of customer engagement and affinity as may be possible. This requires Hydro Ottawa to ensure it is truly embracing the strategic intent of being "customer centric" AND it requires the establishment of a corporate culture which supports both customer and employee engagement.

When an LDC is effective, the end result is higher levels of customer affinity. LDCs have to do the job i.e., provide the service as expected by customers before there is an opportunity to emotionally connect in a positive way. For LDCs customer affinity is not a behavioural metric, it is an attitudinal metric. When customers have good feelings towards their LDC, they "see" less problems and they are more forgiving when there is an issue.



As we look into the future, and recognizing the high degree of attention the electricity industry is getting, we recommend the LDC review its processes and standards around activities/projects – and the supporting marketing communications - that could have an impact on customer perceptions regarding the attributes of “easy to do business with”, “keeps its promises”, “pro-active communications”, “provides information to help customers reduce electricity costs” and, “adapts well to changes in customer expectations”.

We recommend having meaningful two-way dialogue with employees (and others) to leverage the results from your 2016 customer satisfaction survey derived from speaking with 603 Hydro Ottawa customers [October 14 - November 8, 2016]. Thoughtful discussion turns data into information and insights which lead to benefits for all parties.

**UtilityPULSE**

Sid Ridgley  
Simul/UtilityPULSE  
Email: [sidridgley@utilitypulse.com](mailto:sidridgley@utilitypulse.com) or [sridgley@simulcorp.com](mailto:sridgley@simulcorp.com)  
November 2016



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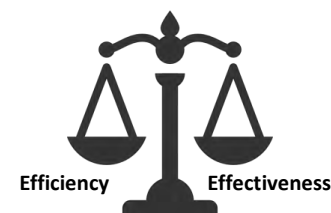
## Satisfaction (pre & post)

In Ontario, the Ontario Energy Board (OEB) has made it clear Customer Satisfaction measurement will be part of an Electricity Distributor's reporting. Measuring satisfaction is the bedrock, or starting point, for the creation of loyal customers. One has to do the job as expected before there is an opportunity to emotionally connect in a positive way.

A focus on satisfaction prompts an organization to continue to evolve in ways that make sense to those who pay the bills. A focus on satisfaction is a focus on effectiveness in the delivery of service to the customer. Satisfied customers who trust their LDC may be more likely to seek advice i.e. energy efficiency methods, and may be more receptive to important messages i.e. safety, new capital projects, etc.

About ratings/measures:

- Satisfaction is not a program, it is an outcome.
- **Efficiency** is about achieving objectives with the minimum amount of people, time, money and other resources.
- **Effectiveness** ratings are measures keeping the organization and its people more future focused than efficiency ratings

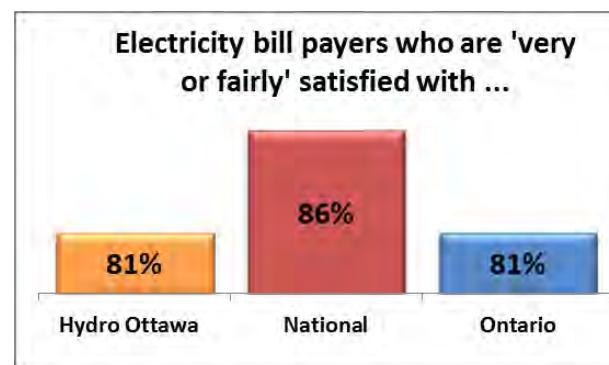


Finding the right balance between efficiency and effectiveness measures is difficult.

Efficiency ratings won't lead to satisfaction but they can lead to dissatisfaction. Taking 90 seconds to answer the phone will create an agitated customer who, for the most part starts off being dissatisfied with the service – before you've even had a chance to deal with or solve their problem. Answering the phone in 20 seconds but not solving the customer's problem is not going to ameliorate the customer's perception about the transaction.

Customer expectations of their electricity LDC have evolved past the “provide electricity reliably, safely and billed both accurately with fair pricing”. They do expect their LDC to be ethical, forward-thinking, competent and trustworthy.

- **Satisfaction** happens when utility core services meet or exceed customer's needs, wants, or expectations.
- **Loyalty** occurs when a customer makes an emotional connection with their electric utility on a diverse range of expectations beyond core services.



Base: total respondents

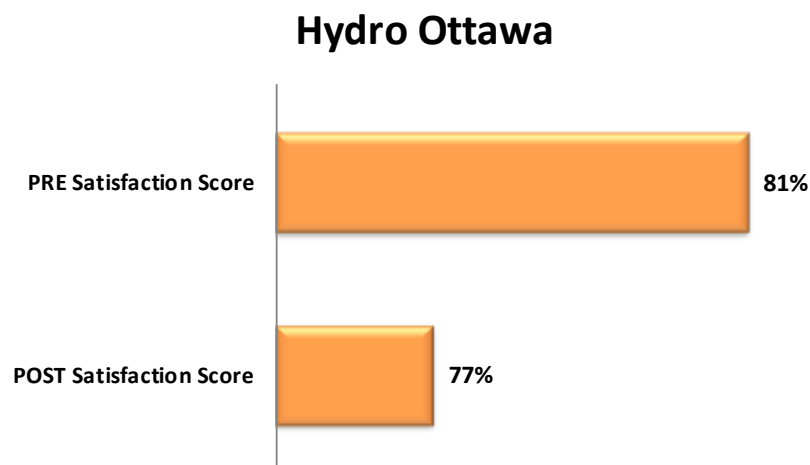
Satisfaction alone does not make a customer loyal; a willingness to commit and advocate for a company along with satisfaction identifies the three basic customer attitudes which underpin loyalty profiles. While satisfaction is

an important component of loyalty, the loyalty definition needs to incorporate more attitudinal and emotive components.

Electricity bill payers who are 'very or fairly' satisfied with...					
	2016	2015	2014	2013	2012
Hydro Ottawa	81%	87%	82%	90%	88%
National	86%	89%	89%	90%	88%
Ontario	81%	86%	83%	90%	86%

Base: total respondents/ (-) not a participant of the survey year

In the Simul/UtilityPULSE Customer Satisfaction survey, the overall satisfaction question is asked both at the beginning (PRE) and the end (POST). Asking the general satisfaction question at the start of the survey avoids bias and we obtain a spontaneous rating. This allows measurement of customers' overall impressions of the utility prior to prompting them to think of specific aspects of the relationship. After we have asked about specific aspects of the customer experience, we gain a more *considered* (or conditioned) response.



Base: total respondents

As with any enterprise, Hydro Ottawa has an obligation to satisfy its customers. But the rewards for satisfying customers go far beyond “obligation”. Customers with high levels of satisfaction handle problems far better than customers with low satisfaction. For employees, serving customers who are very satisfied are more enjoyable interactions than with customers who are very dissatisfied. Satisfied and engaged employees who work in an organizational culture which promotes service excellence is key for completing the job both efficiently and effectively.



SATISFACTION SCORES – Electricity customers' satisfaction			
Top 2 Boxes: 'very + fairly satisfied'	Hydro Ottawa	National	Ontario
<b>PRE: Initial Satisfaction Scores</b>	81%	86%	81%
<b>POST: End of Interview</b>	77%	84%	74%

Base: total respondents

Organizations are not successful; it is the people who work in the organization that are successful. They will move it forward, stall it, or move it backwards. As UtilityPULSE consultants have learned by working with executives and managers, it is the employees' skills, quality of interpersonal relationships and willingness to work as a team that creates value for the organization and its customers.

#### Hydro Ottawa

SATISFACTION SCORES – Electricity customers' satisfaction		
Top 2 Boxes: 'very + fairly satisfied'	Residential	Commercial
Satisfaction Scores	82%	81%

Base: total respondents

SATISFACTION SCORES – Electricity customers' satisfaction [kwh usage]			
Top 2 Boxes: 'very + fairly satisfied'	kWh Group 1	kWh Group 2	kWh Group 3
Satisfaction Scores	83%	83%	76%

Base: total respondents

SATISFACTION SCORES – Electricity customers' satisfaction [Income]			
Top 2 Boxes: 'very + fairly satisfied'	<\$40K	\$40 – 70K	\$70K +
Satisfaction Scores	74%	79%	83%

Base: total respondents

## Customer Service

For the past 25 years or so, certainly during our 18 years as providers of the UtilityPULSE survey, companies and utilities struggle to find the right balance between cost-effective, technology-enabled approaches to customer service and person-to-person contact. In addition, the utility's customer base has an uneven level of interest and skill in using technology-enabling processes. While personal approaches have advantages for many people, such as an ability to respond in a dynamic way to a customer inquiry, they do require much more training, and cost more.



While many things have changed over the years, the keys to good customer service have not. Customers want someone to understand their problem and then respond in a professional, knowledgeable, and timely manner. It is the customer, not the LDC, who determines whether customer service met expectations.

Respondents, were asked about six aspects of their most recent experience with a representative from Hydro Ottawa.

- Information – quality of information provided
- Staff attitude – level of courtesy
- Professionalism – the knowledge of staff
- Delivery – helpfulness of staff
- Timeliness – the length of time it took to get what they needed
- Accessibility – how easy it was to contact someone

“What do our  
**customers**  
want?”

1. *Their problem solved quickly*
2. *To have personal interaction with a customer care representative*
3. *To speak with a knowledgeable and courteous customer care representative*



Base: total respondents who contacted the utility

Satisfaction with Customer Service			
Top 2 Boxes: 'very + fairly satisfied'	Hydro Ottawa	National	Ontario
The time it took to contact someone	83%	74%	68%
The time it took someone to deal with your problem	72%	71%	65%
The helpfulness of the staff who dealt with you	81%	72%	69%
The knowledge of the staff who dealt with you	78%	74%	68%
The level of courtesy of the staff who dealt with you	86%	79%	79%
The quality of information provided by the staff who dealt with you	75%	70%	66%

Base: total respondents who contacted the utility

Overall satisfaction with most recent experience			
	Hydro Ottawa	National	Ontario
<b>Top 2 Boxes: 'very + fairly satisfied'</b>	79%	73%	58%

Base: total respondents who contacted the utility

Every interaction with a customer is an opportunity to generate higher levels of affinity. It is fool-hardy to view the ratings shown above as ratings for the “call-centre” because every person in Hydro Ottawa interacts with a customer or supports those who do have person-to-person contact with a customer. Most of the items listed are intangible which means it is the customer who determines the measurement to be used. What might be a high level of courtesy to one customer is not necessarily a high level of courtesy from another. The inability to put hard measures on an important customer expectation frustrates many in the electric utility business – a business very used to hard measures of performance. Everyone in the organization has to learn, *it is the intangibles not the tangibles* which create satisfied customers.

### Customer Focus – Service Quality

Current measures in the LDC scorecard are: New Residential Services Connected on Time; Scheduled Appointments Met on Time; and, Telephone Calls Answered on Time. These are good examples of efficiency measures as all are time based. Showing up on time may not create satisfaction, not showing up on time will cause dissatisfaction.

UtilityPULSE findings from working with many LDCs over the past few years indicate it is much harder to get great ratings from customers who may not know much about their utility. Despite this, service quality ratings for Hydro Ottawa are very good and above the Ontario benchmark.



Other dimensions of Service Quality which customers value include:

Customer Service Quality			
Top 2 boxes, 'strongly + somewhat agree'	Hydro Ottawa	National	Ontario
Deals professionally with customers' problems	81%	80%	75%
Customer-focused and treats customers as if they're valued	71%	74%	75%
Is a company that is 'easy to do business with'	74%	78%	72%

Base: total respondents with an opinion

When time-pressed customers get their questions and issues dealt with professionally **AND** they are treated as important people the reward is inevitably higher levels of satisfied customers.

## Bill Payers' Problems and Problem Resolution

Outages and billing problems, we call them the “Killer B’s”, the two issues that are most likely to cause grief to utility customers.



At one time, if the power went off for a few minutes, it was considered annoying and inconvenient. However, with the onset of computers and smart appliances in homes and businesses, a power outage is now unbearable. Customers have little tolerance

for an interruption in their flow of electricity.

**3** OUT OF **10**

Approximately, 3 out 10 (31%) of Hydro Ottawa respondents claimed they experienced an outage problem in the past 12 months.

Like it or not, there will be times when the power goes off – and for reasons beyond the control of the LDC.

Percentage of Respondents indicating that they had a Blackout or Outage problem in the last 12 months			
	Hydro Ottawa	National	Ontario
2016	31%	46%	46%
2015	30%	53%	51%
2014	29%	47%	49%
2013	28%	41%	35%
2012	35%	44%	46%

Base: total respondents

For nearly every business, the simple act of collecting payments from customers is actually quite complex. Organizations want to make it easy and convenient for customers to pay, so they offer multiple choices of payment types and channels. However, making it easy for the customer often makes it more complex—and costly—for the business and is certainly not without its problems or flaws.

Percentage of Respondents indicating that they had a Billing problem in the last 12 months			
	Hydro Ottawa	National	Ontario
2016	25%	15%	25%
2015	14%	9%	15%
2014	20%	16%	25%
2013	11%	8%	10%
2012	13%	12%	13%

Base: total respondents



Types of Billing Problems	
	Hydro Ottawa
The amount owed was too high	82%
The bill was difficult to understand	6%
Complaint about rates or charges	5%
Too many extra charges	3%
The bill arrived late	2%
Wrong information on bill	1%
Payment incorrectly recorded	1%

Base: total respondents with billing problems



- 24% of Hydro Ottawa respondents with an outage problem did contact the utility;
- 39% of Hydro Ottawa respondents with a billing problem did contact the utility.

Problems aggravate customers. It could be said, some problems can actually anger customers. As a minimum, a problem is an inconvenience to the customer – and they want it solved/resolved. When the problem is solved with the first interaction (often called first call resolution) overall customer satisfaction improves. That higher level of satisfaction delivers more than just incremental reductions in call center costs. It actually enables your company to build a stronger brand, and bolster customer affinity levels. When customer satisfaction and loyalty improve the utility benefits.

Percentage of Respondents who contacted their utility and had their problem solved in the last 12 months	
Hydro Ottawa	
Yes	64%
No	33%

Base: total respondents with a problem who contacted their utility



First Contact Resolution (FCR) rates are an important metric for improving call center performance. The first step in improving “FCR” is to survey your front-line customer touch-points and understand what kind of assistance and information customers are seeking in these situations. Once you clearly understand what kinds of interactions are taking place at each of your initial customer touch-points, you can then take steps to improve those interactions.

Interestingly when customers do have a problem and contact their LDC, and get the problem solved their satisfaction ratings are very similar to the overall level of satisfaction that exists if not slightly higher, however, failing to deal or resolve a customer’s problem causes satisfaction levels to drop.

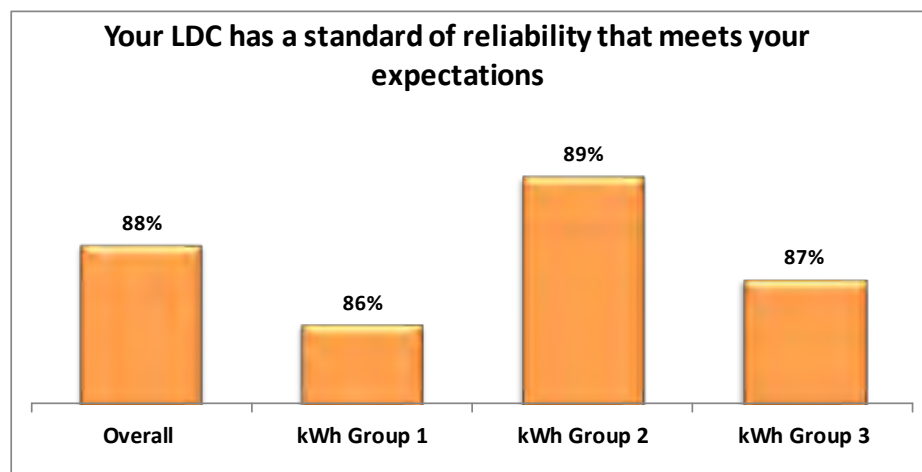
SATISFACTION SCORES – Electricity customers’ satisfaction			
Hydro Ottawa	Overall	Problems Solved	Problems Not Solved
Top 2 Boxes: ‘very + fairly satisfied’	81%	85%	71%

Base: total respondents with a problem who contacted their utility

Make sure customer service representatives have the appropriate training and processes to produce the outcomes in a way that is judged satisfactory by the customer.

Customers have increased their expectations as it relates to getting information about outages. What makes the dissemination of information challenging for the LDC is the need to provide the information via multiple media channels and in a timely manner whilst trying to get the power restored. The perception of competency and value of the LDC are certainly linked to the frequency and duration of power outages.

88% of Hydro Ottawa respondents agree ('strongly + somewhat') the utility's standard of reliability is consistent with their expectations.



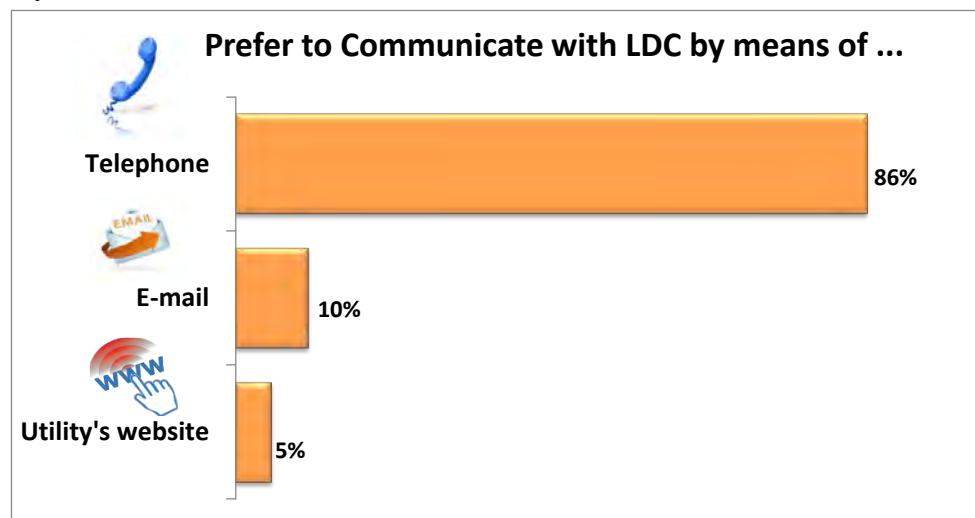
Base: total respondents

**86%**

Which communication channel do customers prefer to use? The telephone remains the most used and preferred method to contact the LDC to communicate with customer care representatives.



86% of Hydro Ottawa respondents prefer the telephone; while 5% chose e-mail and 10% went with the utility's website as channels of communication with the LDC. Many customers find the telephone essential for making contact. However, while this is the most popular communication channel, many may also find it less satisfactory as a means of obtaining information if they can't speak to a real person or can do so only after negotiating an automated answering system.



Base: total respondents with a problem

# Use of Technology

Do people desire greater simplicity and will technology provide the answers? The pace of technological change has been blinding and society has had to evolve with those changes. It is clear that technology and what we do with it is transforming our experience with the world. Where will technology take us in the future, and more importantly how do we feel it will continue to affect our future?



The effect of technological changes on people's lives will lead to a future that is ...				
Hydro Ottawa	Overall	< \$40k	\$40k < \$70k	\$70k+
Mostly better	54%	59%	52%	57%
Mostly worse	7%	10%	5%	5%
Neither	30%	21%	33%	30%
Don't know	8%	10%	7%	7%

Base: total respondents

The effect of technological changes on people's lives will lead to a future that is ...				
Hydro Ottawa	Overall	18-34	35-54	55+
Mostly better	54%	66%	59%	49%
Mostly worse	7%	7%	4%	8%
Neither	30%	22%	28%	33%
Don't know	8%	3%	8%	10%

Base: total respondents

From e-banking, to purchasing e-tickets, reading books on screens and shopping on-line, how have customers chosen to embrace new products and services enabled by technology? Is the average customer overwhelmed by choice and possibilities, or have they found ways to integrate technology into their daily lives?

Access the internet for information				
Hydro Ottawa	Overall	< \$40k	\$40k < \$70k	\$70k+
Yes	88%	67%	84%	95%
No	11%	33%	16%	4%
Don't know	0%	0%	0%	0%

Base: total respondents



Access the internet for information				
Hydro Ottawa	Overall	18-34	35-54	55+
Yes	88%	97%	94%	79%
No	11%	3%	5%	21%
Don't know	0%	0%	0%	0%

Base: total respondents

Have a social media account				
Hydro Ottawa	Overall	18-34	35-54	55+
Yes	63%	85%	75%	48%
No	35%	13%	23%	50%
Don't know	1%	1%	1%	1%

Base: total respondents



Use online banking service				
Hydro Ottawa	Overall	< \$40k	\$40k < \$70k	\$70k+
Yes	79%	56%	80%	91%
No	17%	42%	19%	8%
Don't know	1%	1%	0%	0%

Base: total respondents

Use online banking service				
Hydro Ottawa	Overall	18-34	35-54	55+
Yes	79%	93%	87%	69%
No	17%	6%	9%	29%
Don't know	1%	1%	1%	1%

Base: total respondents

Shop online				
Hydro Ottawa	Overall	< \$40k	\$40k < \$70k	\$70k+
Yes	67%	38%	67%	78%
No	31%	62%	33%	22%
Don't know	0%	0%	0%	0%

Base: total respondents

Shop online				
Hydro Ottawa	Overall	18-34	35-54	55+
Yes	67%	72%	74%	59%
No	31%	28%	25%	40%
Don't know	0%	0%	0%	1%

Base: total respondents



As customers increasingly demand greater empowerment, utilities seek to improve interactions and relationships in their entire operation by enhancing software capabilities for collaboration, gaining deeper customer and market insight and improving process management. Respondents were asked how important having online access to the following features was to them:

Importance of online access for the following features:		
Top 2 Boxes: 'very + somewhat important'	Hydro Ottawa	UtilityPULSE Database
Reporting or inquiring about an issue	75%	73%
Researching information about energy conservation	78%	78%
Having a web chat feature on the website	49%	47%
Automated alerts when electricity usage exceeds a prearranged threshold	69%	69%
Review and pay your bill online (through utility's website)	74%	71%
Power outage alerts	81%	81%
Tools and calculators to help you manage your electricity consumption	66%	64%
Comparison of your electricity consumption with your neighbours	49%	51%
Automated alert to predict your upcoming bill	58%	56%
Automated alert to remind you of your bill due date	62%	58%

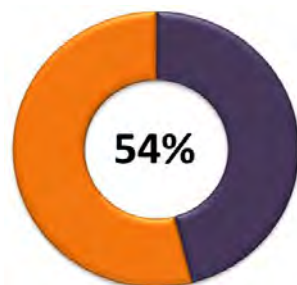
Base: total respondents



# Confidence in the Industry

Public trust in government and municipal services is a critical, though fragile, construct. In the wake of recent negative headlines about escalating hydro rates, the levels of trust in the provincial government are in decline. While trust in the government and regulatory bodies is falling, are customers' attitudes toward the electric industry following suit?

## 'Customers are well served by the electricity system in Ontario' – do you agree?



- 54% Agree ('strongly + somewhat') customers are well served by the electricity system in Ontario
- 7% neither agree nor disagree
- 35% Disagree ('strongly + somewhat') they are well served
- 4% did not render an opinion or did not know

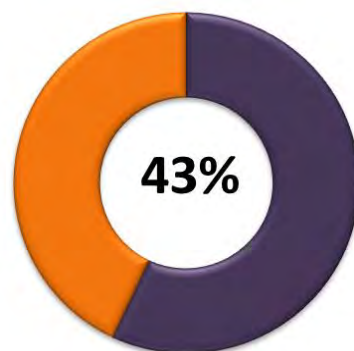
'Customers are well served by the electricity system in Ontario' – do you agree?				
Hydro Ottawa	Overall	< \$40k	\$40k < \$70k	\$70k+
Top 2 Boxes: 'Strongly + Somewhat Agree'	54%	73%	61%	46%

Base: total respondents

'Customers are well served by the electricity system in Ontario' – do you agree?			
	Hydro Ottawa	Ontario	UtilityPULSE Database
Top 2 Boxes: 'Strongly + Somewhat Agree'	54%	56%	57%

Base: total respondents

**'Customers are confident in the electricity industry's ability to meet their future expectations regarding quality, reliability and price' – do you agree?**



- 43% Agree ('strongly + somewhat') customers are confident that the electricity industry has the ability to meet future expectations regarding quality, reliability and price
- 9% neither agree nor disagree
- 45% Disagree ('strongly + somewhat') that the industry can deliver on future expectations
- 3% did not render an opinion or did not know

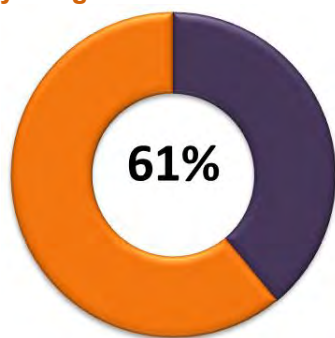
'Customers are confident in the electricity industry's ability to meet future expectations regarding quality, reliability and price' – do you agree?				
Hydro Ottawa	Overall	< \$40k	\$40k < \$70k	\$70k+
Top 2 Boxes: 'Strongly + Somewhat Agree'	43%	44%	45%	39%

Base: total respondents

'Customers are confident in the electricity industry's ability to meet future expectations regarding quality, reliability and price' – do you agree?			
Hydro Ottawa	Ontario	UtilityPULSE Database	
Top 2 Boxes: 'Strongly + Somewhat Agree'	43%	47%	49%

Base: total respondents

**‘Customers are confident in the electricity industry’s ability to keep up with technological changes’ – do you agree?**



- 61% Agree (‘strongly + somewhat’) customers are confident that the electricity industry is able to keep up with technological changes
- 8% neither agree nor disagree
- 26% Disagree (‘strongly + somewhat’) that the industry will keep up with changing technology
- 5% did not render an opinion or did not know

‘Customers are confident in the electricity industry’s ability to keep up with technological change’ – do you agree?				
Hydro Ottawa	Overall	< \$40k	\$40k < \$70k	\$70k+
Top 2 Boxes: ‘Strongly + Somewhat Agree’	61%	62%	63%	56%

Base: total respondents

‘Customers are confident in the electricity industry’s ability to keep up with technological change’ – do you agree?			
	Hydro Ottawa	Ontario	UtilityPULSE Database
Top 2 Boxes: ‘Strongly + Somewhat Agree’	61%	62%	64%

Base: total respondents

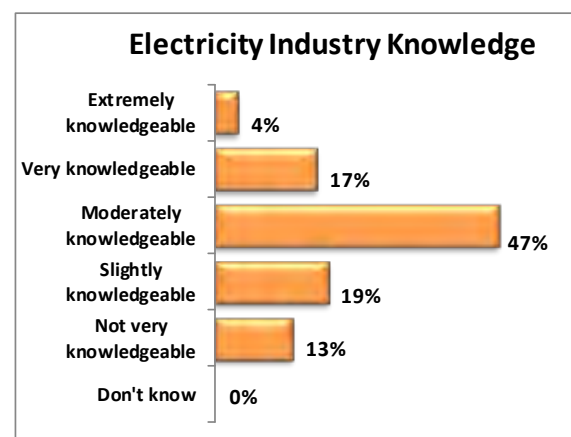
By and large, customers need to have confidence that their LDC is working for them and with them, not against them. LDCs need to listen and communicate openly and clearly, to build confidence among customers, as well as other stakeholders.

# Electric Utility Industry Knowledge

For the first 90 years or so that the electricity distribution industry existed, customers didn't know, and some could say, didn't want to know, how the industry worked in order to appreciate the value of electricity. Yet, we've heard from many professionals and others who work in the industry who have said *'If customers knew how the industry worked they would be more understanding and appreciative of what it costs to reliably deliver electricity'*. For time-pressed and in many cases cash constricted customers, what is the value of truly understanding how the industry works? What will be the benefits of their enhanced knowledge to their lives?

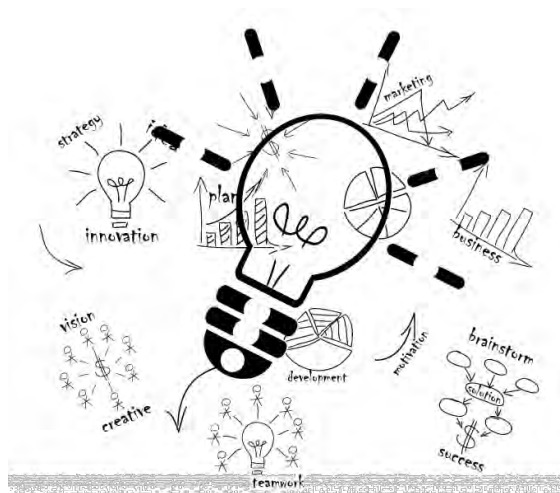
Knowledge level about the electric utility industry		
	Hydro Ottawa	UtilityPULSE Database
Extremely knowledgeable	4%	4%
Very knowledgeable	17%	15%
Moderately knowledgeable	47%	47%
Slightly knowledgeable	19%	20%
Not very knowledgeable	13%	12%
Don't know	0%	1%

Base: total respondents



21% of respondents for Hydro Ottawa described themselves as Extremely or Very knowledgeable about the electric utility industry. 47% claim they are moderately knowledgeable.

Approximately 1 in 5 (20%) survey participants in the UtilityPULSE database describe themselves as Extremely knowledgeable or Very knowledgeable. Only 46% of this knowledgeable group said they agree 'strongly + somewhat' customers were well served by the electricity system.



Approximately 1 in 3 survey respondents describe themselves in the bottom 2 categories of knowledge, and 50% of this group said they agree 'strongly + somewhat' customers are well served.

The data is clear; those that considered themselves more knowledgeable are also much less likely to say they have confidence in the industry to meet their needs and in the industry's ability to keep up with technology. Being knowledgeable is not necessarily a path to better appreciation of the electricity industry.


# Customer Experience Performance rating (CEPr)

The CEPr score is an effectiveness rating and is affected by many dimensions of service. Every touch point with customers on the phone, website or in-person influences what customers think and feel about the organization. While an excellent transaction today creates a positive experience today, the perception created is that future transactions will be excellent too. Of course a negative transaction creates the perception that future transactions will be negative.

When the customer experience is strong, the opportunity to build loyalty is great. When the experience is a negative one, customers often conclude the organization doesn't care. When a customer believes the organization doesn't care, outrage and anger are a very real possibility.

Understanding your customer's expectations for service is the first step in providing an amazing customer experience. It is essential that customer care call centers develop a comprehensive understanding of

*At the heart of the CEPr are 4 central questions:*

- 
1. Are interactions with the organization professional and productive?
  2. Is the organization 'easy to deal with'?
  3. Does the organization effectively meet your needs?
  4. Does the organization provide high quality services?

what customers expect from them, whether or not their needs are being met and how they can improve their service to meet their expectations.

Some of the factors which contribute to the overall customer experience:

- Delivering accessible and consistent customer service (multi-channel)
- Understanding customer expectations
- Maintaining timely resolution timelines
- Providing effective communication(s) according to customer needs
- Demonstrating responsiveness
- Speeding up problem resolution
- Conducting problem analysis to prevent recurring issues
- Easy to do business with
- Seeking customer feedback and following through on recommendations



Customer Experience Performance rating (CEPr)			
	Hydro Ottawa	National	Ontario
<b>CEPr: all respondents</b>	80%	81%	77%

Base: total respondents

The CEPr for Hydro Ottawa is 80%. This rating would suggest that a very large majority of customers have a belief that they will have a good to excellent experience dealing with Hydro Ottawa professionals.

# Customer Centric Engagement Index (CCEI)

Customer engagement is often thought of as a series of activities involving the customer such as conducting a survey, holding town hall type meetings, focus groups, etc. One could call these types of activities as the behaviour side of engagement. However there is an emotional side to engagement.

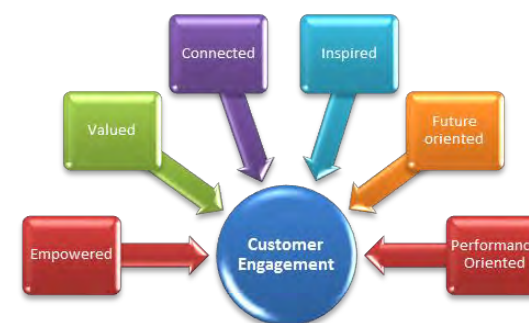
This survey also provides you with an emotional look at engagement. The UtilityPULSE CCEI is a gauge of the amount of goodwill that has been generated. High numbers in CCEI suggest that there is a high level of goodwill amongst your customers – this is important for two reasons. First when something goes awry for the utility, goodwill helps the utility to be resilient. Second, goodwill encourages active participation in requests to participate in engagement activities or program offerings from the utility.

The CCEI is a metric designed to get a more in-depth look at the attachment a customer has with your LDC and its brand. High levels of customer engagement (emotional) correlate strongly to high levels of Secure and Favourable customer numbers.



**Engagement is how customers think, feel and act towards the organization.** As such, ensuring that customers respond in a positive way requires that they are rationally satisfied with the services provided AND emotionally connected to your LDC and its brand. The more frequently and consistently an organization's products and services can connect with a customer, especially on an emotional level, the stronger and deeper the customer becomes engaged with the organization.

UtilityPULSE has identified the six key dimensions of what defines customer engagement. They are: empowered, valued, connected, inspired, future oriented and performance oriented.



Utility Customer Centric Engagement Index (CCEI)			
	Hydro Ottawa	National	Ontario
<b>CCEI</b>	74%	78%	74%

Base: total respondents

Customer centric engagement is a measure of “goodwill” towards the utility. Customers who are less engaged, as measured by the CCEI are more likely to let costs and/or price impact their perceptions of their LDC. Customers who are highly engaged are more inclined to look past costs and money issues and use a rational approach to make values-based decisions. Highly engaged customers have a stronger emotional connection to your utility. It's this emotional connection that will drive commitment, loyalty and advocacy.

# UtilityPULSE Report Card®

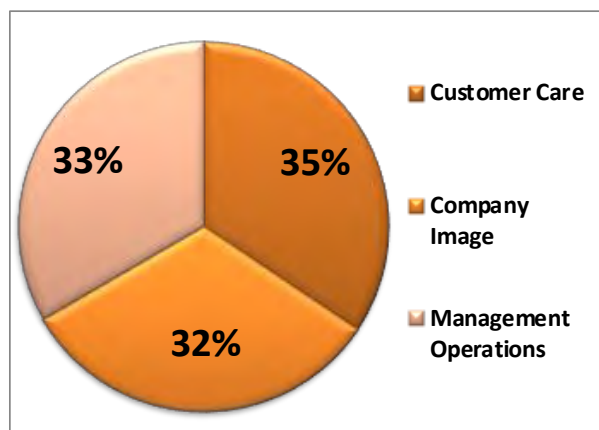
Simul's UtilityPULSE Report Card® is based on tens of thousands of customer interviews gathered over eighteen years. The purpose of the UtilityPULSE Report Card® is to provide electric utilities with a snapshot of performance – on the things that customers deem to be important. Research has identified over 20 attributes, sorted into six topic categories (we call these drivers), that customers have used to describe their utility when they have been satisfied or very satisfied with their utility. These attributes form the nucleus, or base, from which “scores” are assigned. Customer satisfaction and loyalty also play a major role in the calculations.

There are two main dimensions of the UtilityPULSE Report Card® the first is customer psyche and the other is customer perceptions about how the utility executes its business.

## **The Psyche of Customers**

Every utility has virtually the same responsibility – provide safe and reliable electricity – yet not all customers are the same. The following chart shows the weight or significance of each category to the customer when forming their overall impression of the utility. Three major themes, each with two major categories make up the UtilityPULSE Report Card®. In effect the Report Card provides feedback about your customers' perception on the importance of each category and driver – as it relates to the benchmark.

## UtilityPULSE Report Card® for Hydro Ottawa



Base: total respondents

The UtilityPULSE Report Card® also provides customer perceptions about how your utility executes or performs its responsibilities. This is different, very different, from what a customer might say about a major concern or worry that they have about electricity. As our survey has shown since its inception the primary suggestion for improvement is “reduce prices”, which is also a major concern which your customers have about municipal taxes, gas for the vehicle, and other utilities.

Readers of this report should note that the categories and drivers are interdependent. Which means that, for example, failure to provide high levels of power quality and reliability will have a negative impact on customer perceptions as it relates to customer service. Customer care, when it doesn't meet customer expectations has a negative impact on Company Image, etc.



*The UtilityPULSE Report Card is a zero sum game. As customer interest/concern in one area goes up, the others go down.*

Defining the categories and major drivers:

**Category: Customer Care**

**Drivers: Price and Value; Customer Service**

Just because everyone likes good customer care, that in and by itself, is not a reason to provide it – though it may be important to do so. In highly competitive industries good customer service may be a differentiating factor. The case for electric utilities is simple, high levels of customer care result in less work (hence cost) of responding to customer inquiries and higher levels of acceptance of the utility's actions.

***Price and Value:***

Customers have to purchase electricity because life and lifestyle depend on it. This driver measures customer perceptions as to whether the total costs of electricity represent good value and whether the utility is seen as working in the best interests of its customers as it relates to keeping costs affordable.

***Customer Service:***

Customers do have needs and every now and again have to interface with their utility. How the utility handles various customers' requests and concerns is what this driver is all about. Promptly answering inquiries, providing sound information, keeping customers informed and doing so in a professional manner are the major components of this driver.

## **Category: Company Image**

### **Drivers: Company Leadership; Corporate Stewardship**

Utilities have an image even if they do not undertake any activities to try to build it. A company's image is both a simple and complex concept. It is simple because companies do create images that are easily described and recognized by their target customers. It is complex because it takes many discrete elements to create an image which includes, but is not limited to: advertising, marketing communications, publicity, service offering and pricing.

An electric utility trying to manage its image has one more challenge to deal with, and that is the electric industry itself. There are so many players that residential customers (in particular) don't know who does what or who is responsible for what. So when there are political or regulatory announcements, the local utility is often swept up into the collective reaction of the population.

#### ***Company Leadership***

This driver is comprised of customer perceptions as it relates to industry leadership, keeping promises and being a respected company in the community.

#### ***Corporate Stewardship***

Customers rely on electricity and want to know that their utility is both a trusted and credible organization that is well managed, is accountable, is socially responsible and has its financial house in order.

**Category: Management Operations**

**Drivers: Operational Effectiveness; Power Quality and Reliability**

Electrical power is the primary product which utilities provide their customers and, they have very high expectations that the power will be there when they need it. Customers have little tolerance for outages. The reality is, every utility has to get this part right...no excuses. It is the utility's core business. This category and its drivers are clearly the most important for fulfilling the rational needs of a utility's customers.

***Operational Effectiveness***

This driver measures customers' perceptions as they relate to ensuring that their utility runs smoothly. Attributes such as: accurate billing and meter reading, completing service work in a professional and timely manner and maintaining equipment in good repair are deemed as important to customers.

***Power Quality and Reliability***

Power outages are a fact of life – and, customers know it. They expect their utility to provide consistent, reliable electricity, handle outages and restore power quickly and make using electricity safely an important priority.

Hydro Ottawa's UtilityPULSE Report Card®				
Performance				
	CATEGORY	Hydro Ottawa	National	Ontario
1	<b>Customer Care</b>	<b>B</b>	<b>B</b>	<b>C+</b>
	Price and Value	C	C+	C
	Customer Service	B+	B+	B+
2	<b>Company Image</b>	<b>B</b>	<b>B+</b>	<b>B</b>
	Company Leadership	B	B+	B
	Corporate Stewardship	B	B+	B
3	<b>Management Operations</b>	<b>A</b>	<b>A</b>	<b>A</b>
	Operational Effectiveness	B+	A	B+
	Power Quality and Reliability	A+	A	A
<b>OVERALL</b>		<b>B+</b>	<b>B+</b>	<b>B</b>

Base: total respondents

As the UtilityPULSE Report Card® shows, the total customer experience with an electric utility is defined as more than “keeping the lights on”. Customers deal with your utility every day for a variety of reasons, most likely because they need someone to help them solve a problem, answer a question or take their order for service. All your employees, from customer service representatives to linemen, leave a lasting impression on the customers they interact with. In effect there are many moments of truth. Moments of truth are every customer touch point that a utility has with their customers. Therefore, managing these moments of truth creates higher levels of Secure customers while reducing the number of At Risk customers that exist.

It's the small things done consistently that matter: Things like greeting every customer, whether on the phone or in person, in a friendly and helpful manner. Things like listening to the customer's needs, providing solutions to their problems and showing appreciation to the customer for their business.

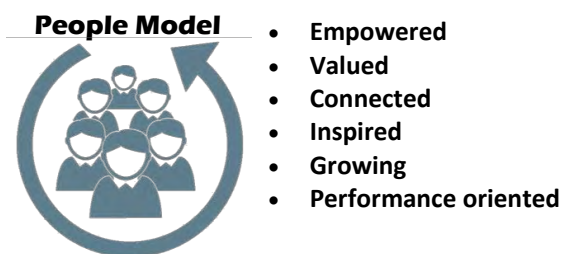
Utilities now recognize customer communications as a valuable aspect of their business. The better a utility communicates with customers in a manner that speaks to them, the more satisfied they are with their overall service. “Sending out information” is not the same as having a “conversation” with a customer. We believe that it is increasingly important to channel your communications to the various customer segments which exist.

Obviously employees – in every area – play a critical role in customer service success. Consequently how they feel about their job responsibilities and role in the company will be communicated indirectly through the level of

service which they actually provide customers with whom they interact. The reality is engaged employees are the key to excellent customer care.

Our survey work with employees shows that there are many elements of an organizational culture to support the people model needed to achieve high levels of engagement.

Our research has identified 6 main drivers that promote and support people giving their best:



There are 12 key processes from “attracting employees” to “saying goodbye to employees” that are part of your people model to get the best performance from every employee.

We believe that taking the time to understand the difference between employee satisfaction and organizational culture is worthwhile from a resourcing perspective and from a people development perspective. Every organization has a culture – we believe that it is a leadership imperative to install and maintain a culture that ensures that you attain the achievements and successes of your utility’s many investments in people, technology and equipment. It is true, organization culture affects everyone and everyone affects organization culture.

# The Loyalty Factor

If a customer is satisfied, it doesn't necessarily mean he or she is loyal. Satisfaction is about fulfilling promises/expectations; loyalty goes way beyond that by creating exceptional experiences and long-lasting relationships. There is a reason why marketing campaigns strive to build brand loyalty, not brand satisfaction. Measuring customer loyalty in an industry where many customers don't have a choice of providers doesn't make sense. Or does it?

The answer depends on how you define "customer loyalty."

Private industry often equates customer loyalty with basic customer retention. If a customer continues to do business with a company, that customer is, by definition, considered to be loyal. If this definition were applied to many companies in the utility industry, all customers would automatically be considered loyal. As such, measuring customer loyalty would appear to be unnecessary.

Natural monopolies (like LDCs) are not really different in what they should measure except that trying to determine which customers are "loyal" or "at risk" is not about their future behaviour but more about their "attitudinal" loyalty (are they advocates?).



Whether a customer is loyal and/or satisfied will be determined by an alignment of the emotion, experience and expectation of both the customer and the LDC.

Perhaps a better or more relevant way for utilities to approach the definition of customer loyalty is to further expand how they think about loyalty. Consider the following definition: Customer loyalty is an emotional disposition on the part of the customer that affects the way(s) in which the customer (consistently) interacts, responds or reacts towards the company – its products & services and its brand.

So what does it mean to respond favourably to a company? At a basic level, this can mean choosing to remain a customer. As previously mentioned however, this is essentially a non-issue for many utility companies. It then becomes necessary to think beyond just customer retention. One needs to consider other ways in which customers can respond favourably toward a company.

Other favourable responses or behaviours can be classified into one of three categories that reflect the concept of customer loyalty:

- Participation
- Compliance or Influence
- Advocacy



**Some Tips to build loyalty:**

- ✓ Solve problems quickly
- ✓ Treat customers right
- ✓ Listen to complaints
- ✓ Be personal; create a great experience
- ✓ Friendly customer service
- ✓ Accessible information or help
- ✓ Good reputation
- ✓ Demonstrate you care

Specific examples of potential participatory behaviour in the electric utility industry include:

- Signing up for programs that help the customer reduce or manage their energy consumption
- Using the utility as a consultant when selecting energy products and services from a third party
- Participating in pilot programs or research studies.

Specific examples of potential compliance or influence behaviours that utility customers might exhibit include:

- Seeking the utility's advice or expertise on an energy-related issue
- Voluntarily cutting back on electricity usage if the utility advised the customer to do so
- Accepting the utility's energy advice or referrals to energy contractors or equipment
- Being influenced by the utility's opinion regarding energy- management advice, equipment, or technologies
- Providing personal information that enables the utility to better serve the customer
- Paying bills online.

Creating customer advocates can be especially important for a company in a regulated industry. In the absence of customer advocates, or worse, in a situation where customers speak unfavourably about a company or actively work to support issues that are counter to those the company supports, companies can suffer a variety of negative consequences like increased business costs, lawsuits, fines and construction delays. For an electric utility, specific examples of potential advocacy behaviour include:

- Supporting the utility's positions or actions on energy-related public issues, including the environment
- Supporting the utility's position on the location and construction of facilities
- Providing testimonials about positive experiences with the utility.

In sum, loyal behaviour in the utility industry may not be as evident as it is in a more competitive environment. Measuring customer loyalty in a generally non-competitive industry requires one to think about loyalty in non-

traditional ways. Customer loyalty is an intangible asset that has positive consequences or outcomes associated with it no matter what the industry. Properly measuring loyalty among utility customers requires thoughtful probing to thoroughly identify the range of participation, compliance, and advocacy behaviours that will ultimately benefit the company in meaningful ways, and foster happier and more loyal customers.

The UtilityPULSE Customer Loyalty Performance Score segments customers into four groups: **Secure** – the



most loyal - **Still Favorable**, **Indifferent**, and **At risk**.

**Secure** customers are “very satisfied” overall with their local electricity utility. They have a very high emotional connection with their utility and definitely would recommend their local utility.

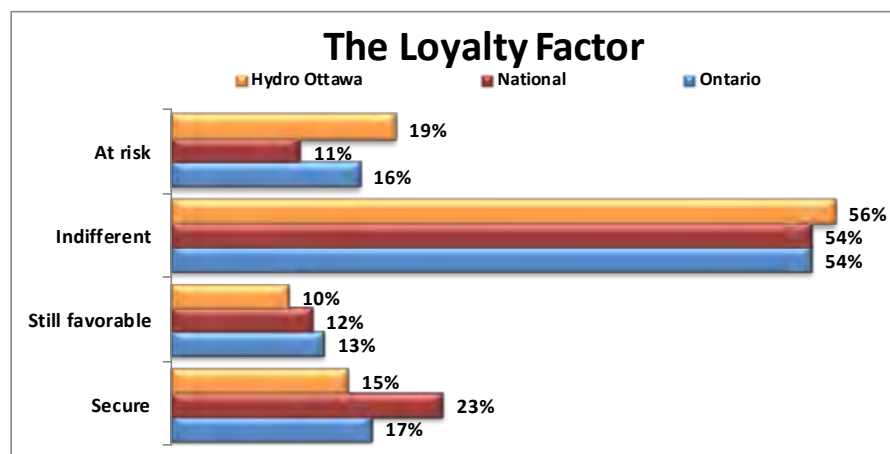
**Still favorable** customers are “very satisfied” overall, “definitely” or “probably” would recommend their local utility and not switch if they could.

**Indifferent** customers are less satisfied overall than secure and still-favorable customers and less inclined to recommend their local utility or say they would not switch.

**At risk** customers, who are “very dissatisfied” with their electricity utility, “definitely” would switch and “definitely” would not recommend it.

Customer Loyalty Groups				
	Secure	Favorable	Indifferent	At Risk
Hydro Ottawa				
2016	15%	10%	56%	19%
2015	15%	8%	63%	14%
2014	15%	8%	61%	16%
2013	29%	15%	47%	8%
2012	25%	13%	51%	11%

Base: total respondents

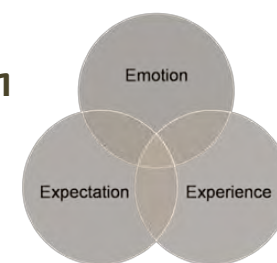


Base: total respondents

Customer Loyalty Groups				
	Secure	Favorable	Indifferent	At Risk
<b>Ontario</b>				
<b>2016</b>	17%	13%	54%	16%
<b>2015</b>	17%	11%	61%	11%
<b>2014</b>	17%	10%	57%	17%
<b>2013</b>	24%	15%	51%	11%
<b>2012</b>	20%	13%	53%	14%
<b>National</b>				
<b>2016</b>	23%	12%	54%	11%
<b>2015</b>	18%	11%	61%	10%
<b>2014</b>	20%	11%	56%	13%
<b>2013</b>	26%	17%	47%	10%
<b>2012</b>	30%	13%	46%	11%

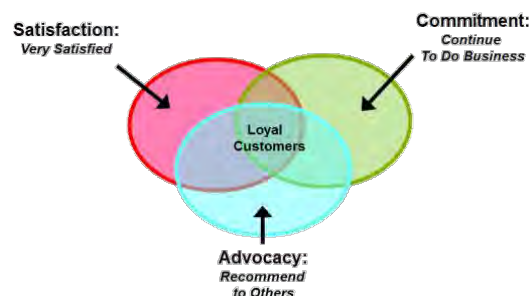
Base: total respondents

“Whether a customer is loyal and/or satisfied will be determined by an alignment of the emotion, experience and expectation of both the customer and the LDC.”



# Customer commitment

## Customer Loyalty Model



Customer loyalty is a term that can be used to embrace a range of customer attitudes and behaviours. One of the metrics used to gauge loyalty is the measure of **retention**, or intention to buy again; this loyalty attitude is termed **commitment**. For LDCs commitment is not about behaviour it is about attitude i.e., do they want to remain your customer.

Customer commitment is a very important driver of customer loyalty in the electricity service industry. In a similar way to trust, commitment is considered an important ingredient in successful relationships. In simpler terms, commitment refers to the motivation to continue to do business with and maintain a relationship with a business partner i.e. the local utility.

For electric utilities, this measurement is about identifying the number of customers who feel that they “want to” vs “have to” do business with you. Potential benefits of commitment may include word of mouth communications - an important aspect of attitudinal loyalty. Committed customers have been known to demonstrate a number of beneficial behaviours, for example committed customers tend to:

- Come to you. One of the key benefits of establishing a good level of customer loyalty is that customers will come to you when they need a product or service

- Validate information received from 3<sup>rd</sup> parties with information and expertise that you have
- Try new products/initiatives
- Perhaps they will even trust you when recommendations are made
- Be more price tolerant
- More receptivity of utility viewpoints on various issues
- More tolerance of errors or issues that inevitably take a swipe at the utility
- Stronger levels of perception regarding how the utility is managed.

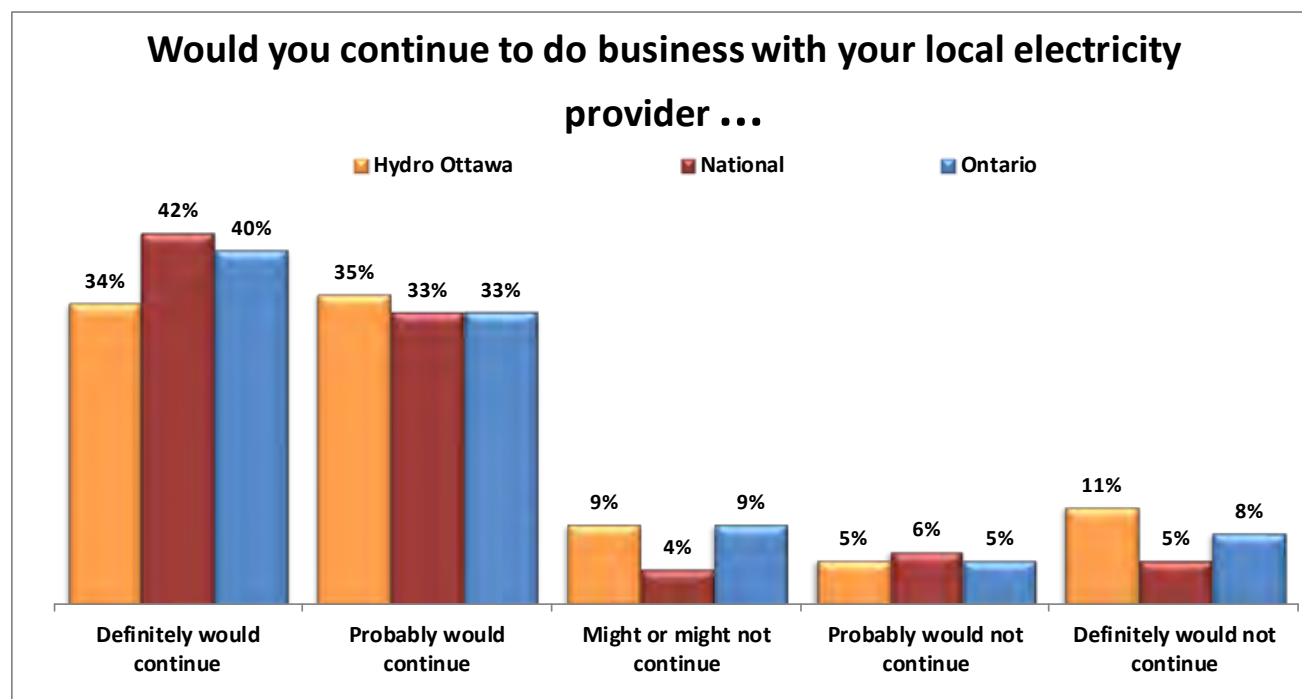
Though customers can not physically leave you, they can emotionally leave you and when they do, it becomes an extreme challenge to garner their participation or support for utility initiatives.

Electricity customers' loyalty – ... Is a company that you would like to continue to do business with			
	Hydro Ottawa	National	Ontario
<b>Top 2 Boxes: 'Definitely + Probably' would continue</b>	70%	75%	74%
<b>Definitely would continue</b>	34%	42%	40%
<b>Probably would continue</b>	35%	33%	33%
<b>Might or might not continue</b>	9%	4%	9%
<b>Probably would not continue</b>	5%	6%	5%
<b>Definitely would not continue</b>	11%	5%	8%

Base: total respondents

Electricity customers' loyalty – ... Is a company that you would like to continue to do business with					
Hydro Ottawa	2016	2015	2014	2013	2012
<b>Top 2 boxes:</b> <b>'Definitely + Probably' would continue</b>	70%	73%	68%	80%	79%

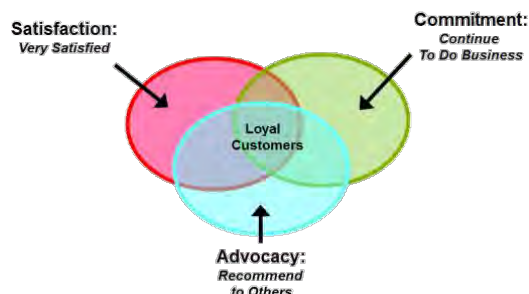
Base: total respondents



Base: total respondents

## Word of mouth

### Customer Loyalty Model

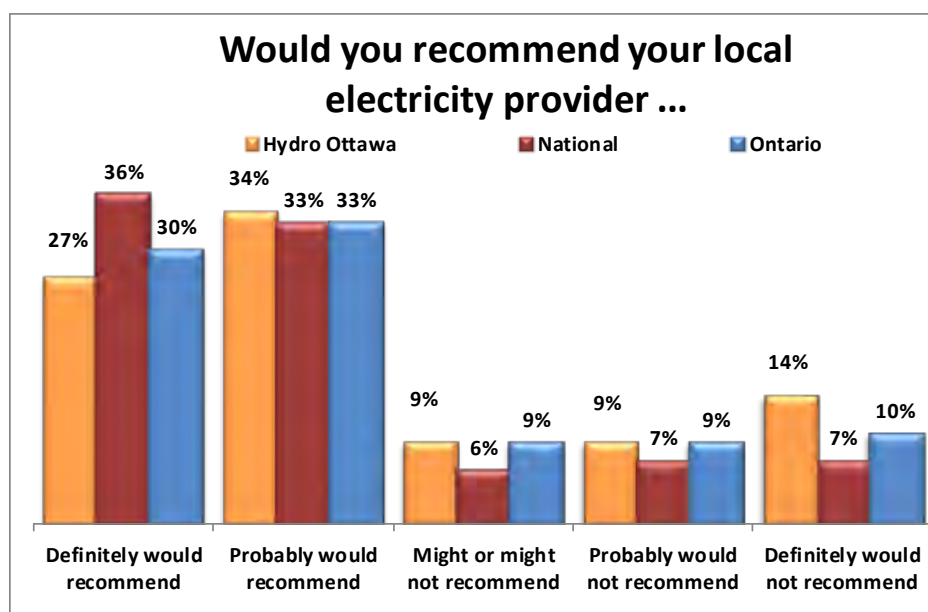


Advocacy is one of the metrics measured in determining customer loyalty. Essentially, companies believe that a loyal customer is one that is spreading the value of the business to others, leading new people to the business and helping the company grow. Customer referrals, endorsements and spreading the word are extremely important forms of customer behaviour. For LDCs this is about generating positive referants about the LDC as a relevant and valuable enterprise.



When customers are loyal to a company, product or service, they not only are more likely to purchase from that company again, but they are more likely to recommend it to others – to openly share their positive feelings and experiences with others. In today's world, thanks to the Internet, they can tell and influence millions of people. That equates to new customers and revenue. The same holds true, if not more, when customers are disloyal. Disgruntled customers could share their negative experiences with an ever-widening audience, jeopardizing a company's reputation and resulting in fewer engaged customers and/or customers who are Favourable or Secure. Secure customers, typically are advocates and they are deeply connected and brand-involved.

Would you tell me if you agree or disagree with the following statement? Hydro Ottawa is a company that you would recommend to a friend or colleague ...



Base: total respondents

Word of mouth communication is a very powerful form of communication and influence. When customers are speaking to other customers (or their peers) it is more credible, goes through less perceptual filters and can enhance the view of services or products better than marketing communication.

*There are two forms of word of mouth which utilities need to understand. The first is Experience-based word of mouth which is the most common and most powerful form. It results from a customer's direct experience with the utility or the re-statement of a direct experience from a trusted source.*

*The second is Relay-based word of mouth. This is when customers pass along important messages to others based on what they have learned through the more traditional forms of communications. For example, if the utility was communicating an offer for "free LED lights" chances are high that the offer will be "relayed" to others through word of mouth.*

*For an electric utility, specific examples of potential positive advocacy behaviour include:*

- *Recommending that other customers specifically locate in the geographic area that is serviced by that utility*
- *Supporting the utility's positions or actions on energy-related public issues, including the environment*
- *Supporting the utility's position on the location and construction of facilities*
- *Providing testimonials about positive experiences with the utility*

Electricity customers' loyalty – ... is a company that you would recommend to a friend or colleague			
	Hydro Ottawa	National	Ontario
<b>Top 2 boxes: 'Definitely + Probably' would recommend</b>	61%	70%	64%
<b>Definitely would recommend</b>	27%	36%	30%
<b>Probably would recommend</b>	34%	33%	33%
<b>Might or might not recommend</b>	9%	6%	9%
<b>Probably would not recommend</b>	9%	7%	9%
<b>Definitely would not recommend</b>	14%	7%	10%

Base: total respondents

Electricity customers' loyalty – is a company that you would recommend to a friend or colleague					
Hydro Ottawa	2016	2015	2014	2013	2012
<b>Top 2 boxes: 'Definitely + Probably' would recommend</b>	61%	68%	62%	77%	72%

Base: total respondents

Our survey research as well as theory backs up the fact that if your customers are willing to endorse you and put their reputation on the line to recommend you, they also trust you and are satisfied with the service you are providing.

## Corporate image

Is “corporate image” about corporate brand, is it reputation, is it the demonstration of goodwill? A corporate image is the sum of the impressions that stakeholders like your customers, suppliers, employees and the public at large hold about your company. Corporate image is comprised of a number of interrelated variables: corporate identity, corporate communication, corporate image, and corporate reputation.

Corporate identity is the reality of the corporation. It is the unique, individual personality of the company that differentiates it from other companies. To use the marketing metaphor, it is also called a company’s “brand equity.” Customers perceive an organization’s image based on whether they trust organizations or they believe that those organizations represent values congruent with their own. Image is the mental picture that people have of an organization, whereas reputation constitutes a value judgment about the company’s attributes.

Every LDC has a brand and a brand image, while that image can be affected by events in the industry beyond the control of the LDC, the reality is there is a cost benefit to improving the customer experience, generating higher levels of customer engagement and growing the numbers of Favourable and Secure customers. Customers expect that your utility will conduct its business professionally **AND** be a proactive enterprise. How would they know, if you don’t communicate with them?

Increasingly, organizations have realized that the management of a strong positive image with various stakeholders can be beneficial. Below are some of the attributes measured in the annual UtilityPULSE survey which are strongly linked to a utility's image.

Marketing – Communications			
	Hydro Ottawa	National	Ontario
<b>Topics that require more pro-active communication</b>			
<b>Cost of electricity is reasonable when compared to other utilities</b>	48%	58%	46%
<b>Adapts well to changes in customer expectations</b>	63%	71%	69%
<b>Provides good value for money</b>	57%	65%	58%
<b>Spends money prudently to keep the system reliable and up-to-date</b>	65%	71%	65%
<b>Operates a cost effective electricity distribution system</b>	58%	67%	57%
<b>Topics that your utility scores very well on</b>			
<b>Is a respected company in the community</b>	75%	80%	74%
<b>A company to “continue to do business with”</b>	77%	79%	72%
<b>Overall the utility provides excellent quality services</b>	81%	84%	80%
<b>Standard of reliability delivering electricity that meets expectations</b>	88%	86%	84%
<b>Provides consistent, reliable energy</b>	92%	89%	86%

Base: total respondents with an opinion

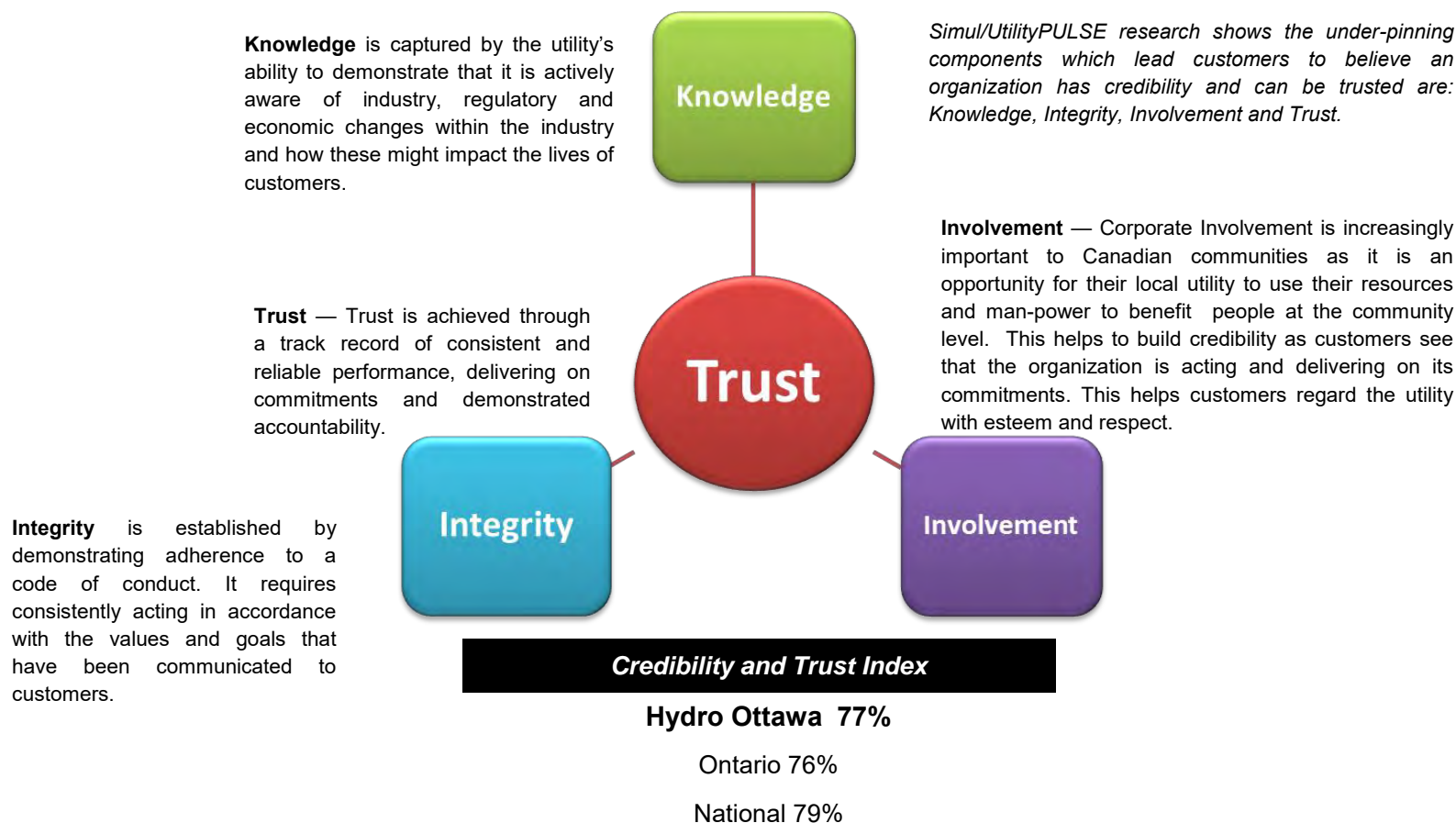
# Corporate Credibility & Trust

In today's world, with the Internet and twenty-four-hour media/news coverage on TV, corporate reputations which take decades to build can be destroyed in one news cycle. With disgraced executives making headlines everywhere, corporations must demonstrate social and moral responsibility as a matter of their own survival. Reputation matters, now more than ever. Corporate behaviours and corporate social responsibilities has always been the central point of corporate reputation. Trust is an indispensable part of corporate reputation and is also an important prerequisite for the formation of customer loyalty.

Based on economic and other societal impacts many Canadians have been using words such as credibility and trust to describe their place of work or the place(s) where they do business. Yet, if you ask 5 people for a definition of credibility and trust, chances are you'll get 5 definitions. Trust and credibility are indicators of the degree of confidence stakeholders have in your organization's ability to deliver on its commitments. Trust and credibility are outcomes based on what your utility actually does, not what it might be doing.

Attributes strongly linked to Credibility & Trust			
	Hydro Ottawa	National	Ontario
Overall the utility provides excellent quality services	81%	84%	80%
Keeps its promises to customers and the community	71%	77%	73%
Customer-focused and treats customers as if they're valued	71%	74%	75%
Is a trusted and trustworthy company	75%	79%	72%

Base: total respondents with an opinion



## How can service to customers be improved?

The electric utility industry is in a state of continuous transformation. External factors - including shifts in governmental policies, a global thrust to conserve energy, advances in new technologies and power generation are driving massive changes throughout the industry. LDCs of today and of the future can also expect a much more intense level of customer involvement. UtilityPULSE research shows customers want to be heard.

In spite of all the talk today centered on quality, new processes and systems, continuous improvement, and costs, unless all of this is aimed at obtaining customer satisfaction it will not be worth much over the longer term.

The late Harvard Business School professor Theodore Levitt pointed out that customers often do not want the product itself, but rather the effect that the product produces. In his famous example, customers do not want a drill; they want the holes that the drill will make. In the same light, we observe, customers do not want volts or wattage or kilowatt hours; they want the comfort and convenience that electricity facilitates; heat when they are cold, cool relief when they are hot, the ability to use appliances which bring additional comfort and/or convenience i.e. washer to wash their clothes etc.

Customers want their utility to focus on what matters most; offer products and services that “make a difference in their life”, “gives them peace of mind” and “delivered by trusted and credible people”.

*And we are interested in knowing what you think are the one or two most important things Hydro Ottawa could do to improve service to their customers?*

One or two most important things 'your local utility' could do to improve service	
	Hydro Ottawa
Better prices/lower rates	50%
Be more environmentally friendly / green energy	10%
Improve/simplify/clarify billing	6%
Be more efficient / money management	4%
Improve reliability of power	3%
Better communication with customers	3%
Staff related concerns	3%
Better outage communication	2%
End Time of Use rates	2%
Restore power faster	1%

Base: total respondents

## What do customers think about electricity costs?

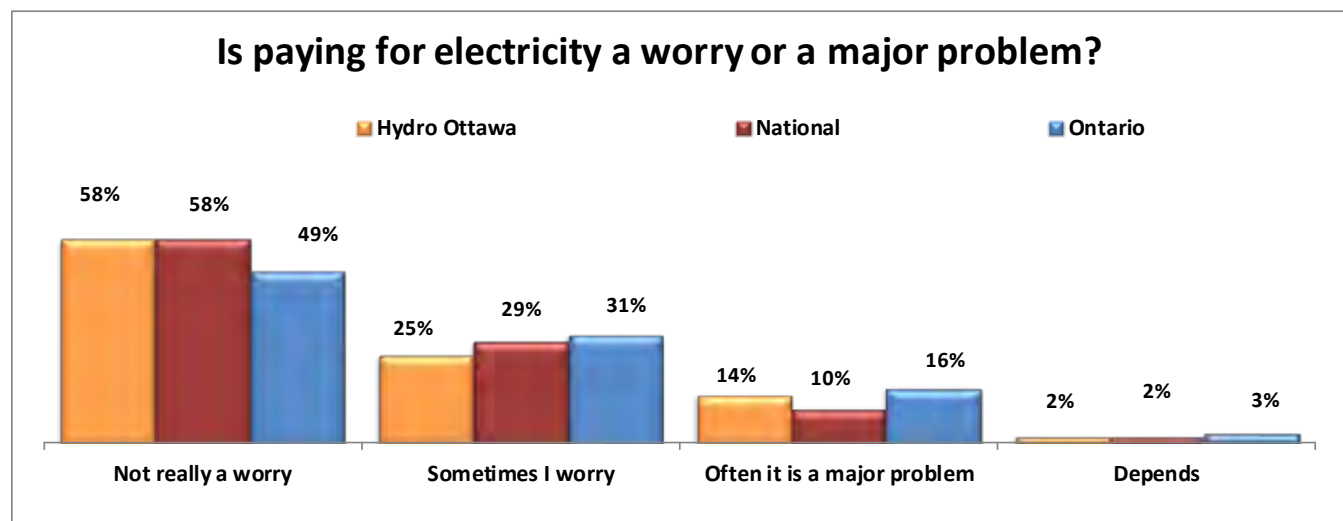
A conversation with almost any LDC customer will migrate into a conversation around cost. The concern around cost has little to do with age or income, or whether the customer uses a little or a lot of electricity – they all have a concern over costs. Unfortunately very few customers actually realize that their LDC, (in a residential setting) is only taking about 18-20% of the total electricity bill. A customer concern over costs is first and foremost a concern over the total bill. It doesn't help that there have been industry issues, outside the control of the LDC, or the fact that rates for the commodity portion of the bill have gone up over 100%. Inflation over the same time frame is less than 25% and for many Ontarians salary increases have been very, very low.

Beginning in 1999, our first year of dedicated research for the electric utility industry, and continuing on to 2016, there was a very high correlation between ability to pay and satisfaction. A truism about human nature is, when there is an absence of a value proposition the only thing people will focus on is price.

*Next I am going to read a number of statements people might use about paying for their electricity. Which one comes closest to your own feelings, even if none is exactly right? Paying for electricity is not really a worry, Sometimes I worry about finding the money to pay for electricity, or Paying for electricity is often a major problem?*

Is paying for electricity a worry or a major problem?				
	Not a worry	Sometimes	Often	Depends
Hydro Ottawa	58%	25%	14%	2%
National	58%	29%	10%	2%
Ontario	49%	31%	16%	3%

Base: total respondents



Base: total respondents

Is paying for electricity a worry or a major problem?				
	Not a worry	Sometimes	Often	Depends
Hydro Ottawa				
<\$40,000	35%	38%	24%	1%
\$40<\$70,000	54%	31%	13%	2%
\$70,000+	68%	20%	10%	0%

Base: total respondents

UtilityPULSE segmented respondents into 3 “average kWh groups”. Group 1 represents 25% of the customer base derived from segmenting the customer data file into the first quartile of kWh usage. Group 2 represents the middle 50% of the customer base; and Group 3 represents the top quartile of kWh customers. Group 1 uses the least amount of electricity on average, while Group 3 uses the most.

Is paying for electricity a worry or a major problem?			
Hydro Ottawa	kWh Group 1	kWh Group 2	kWh Group 3
Not really a worry	60%	59%	53%
Sometimes I worry	25%	23%	27%
Often it is a major problem	12%	13%	17%
Depends	2%	3%	1%

Base: total respondents

Is paying for electricity a worry or a major problem?				
	Not a worry	Sometimes	Often	Depends
<b>Ontario</b>				
<b>2016</b>	49%	31%	16%	3%
<b>2015</b>	59%	25%	10%	2%
<b>2014</b>	59%	26%	11%	2%
<b>2013</b>	66%	21%	11%	1%
<b>2012</b>	59%	27%	11%	2%
<b>National</b>				
<b>2016</b>	58%	29%	10%	2%
<b>2015</b>	67%	22%	8%	2%
<b>2014</b>	69%	20%	7%	3%
<b>2013</b>	70%	18%	8%	2%
<b>2012</b>	67%	22%	8%	2%

Base: 2016 UtilityPULSE database

## What do small commercial customers think?

Based on data in the UtilityPULSE database, small commercial customers have relatively similar views about their utility. The tables associated with this report will contain your specific information as it relates to residential and commercial customers. A word of caution, smaller data samples create greater swings or spreads in the data, hence mitigating the effect of a small data sample by using the UP database.

### **Small Commercial Customer (General Service < 50kW Demand)**

A small commercial customer is defined by the OEB as a non-residential customer in a less than 50 kW demand rate class. These customers are similar to the residential customer in that their bill does not have a demand component to it and their charges are based upon KWH of consumption. Most of these customers would occupy small storefront locations or offices



An area of concern, is about the LDC's ability to "target" its communications to the type of business. Beyond having a contact telephone number, company name and address there isn't much "knowledge" about the small commercial customer. In a time when "targeted" communication is important, knowing the type of category of

small commercial account would assist LDCs in delivering meaningful messages in an effective way. This could be particularly important in the area of energy conservation i.e., pulling together messages and programs for specific types of businesses. After all, a small restaurant is different from a small accounting office.

Satisfaction: Pre & Post		
Satisfaction (Top 2 Boxes: 'very + somewhat satisfied')	Residential	Commercial
Initially	86%	88%
End of Interview	83%	88%

Base: total respondents from the 2016 UtilityPULSE Database

As it relates to the six attributes associated with customer service:

Very or fairly satisfied with...	Residential	Commercial
The time it took to contact someone	83%	88%
The time it took someone to deal with your problem	78%	72%
The helpfulness of the staff who dealt with your problem	84%	73%
The knowledge of the staff who dealt with your problem	82%	76%
The level of courtesy of the staff who dealt with your problem	87%	88%
The quality of information provided by the staff member	80%	66%

Base: total respondents from the 2016 UtilityPULSE Database



Both Residential and Commercial respondent scores reflect an undercurrent of discontent with customer service.

Killer B's: Outages & Bills problems		
	Residential	Commercial
Respondents with outage problems	38%	38%
Respondents with billing problems	26%	22%

Base: total respondents from the 2016 UtilityPULSE Database

Overall satisfaction with most recent experience		
	Residential	Commercial
Top 2 Boxes: 'very + somewhat satisfied'	78%	74%
Bottom 2 Boxes: 'somewhat + very dissatisfied'	20%	26%

Base: total respondents from the 2016 UtilityPULSE Database

Comparisons between Residential and Commercial		
Loyalty Groups	Residential	Commercial
Secure	21%	22%
Still Favourable	12%	13%
Indifferent	53%	56%
At risk	14%	9%

Base: total respondents from the 2016 UtilityPULSE Database

Loyalty Model Factors		
	Residential	Commercial
Very/somewhat satisfied	86%	88%
Definitely/probably would continue	77%	75%
Definitely/probably would recommend	68%	69%

Base: total respondents from the 2016 UtilityPULSE Database

Important attributes which describe operational effectiveness		
	Residential	Commercial
Provides consistent, reliable electricity	90%	92%
Delivers on its service commitments to customers	85%	85%
Accurate billing	84%	86%
Quickly handles outages and restores power	88%	90%
Makes electrical safety a top priority	89%	90%
Is efficient at managing the electricity distribution system	79%	80%
Is a company that is 'easy to do business with'	80%	84%
Operates a cost effective electricity distribution system	64%	64%
Standard of reliability meets expectations	87%	89%

Base: total respondents from the 2016 UtilityPULSE Database with an opinion

Important attributes which shape perceptions about service quality and value		
	Residential	Commercial
Is pro-active in communicating changes and issues which may affect customers	74%	81%
Provides good value for money	60%	65%
Customer-focused and treats customers as if they're valued	78%	74%
Deals professionally with customers' problems	85%	84%
Spends money prudently	72%	75%
Quickly deals with issues that affect customers	80%	79%
Provides information and tools to help manage electricity consumption	78%	76%
Provides information to help customers reduce their electricity costs	75%	70%
The cost of electricity is reasonable when compared to other utilities	49%	47%

Base: total respondents from the 2016 UtilityPULSE Database with an opinion

Important attributes which shape perceptions about corporate image		
	Residential	Commercial
Is a respected company in the community	82%	82%
A leader in promoting energy conservation	74%	77%
Keeps its promises to customers and the community	79%	82%
Is a socially responsible company	77%	83%
Is a trusted and trustworthy company	82%	83%
Adapts well to changes in customer expectations	71%	70%
Overall the utility provides excellent quality services	84%	83%

Base: total respondents from the 2016 UtilityPULSE Database with an opinion

Importance of online access for the following features:		
Top 2 Boxes: 'very + somewhat important'	Residential	Commercial
Reporting or inquiring about an issue	73%	69%
Researching information about energy conservation	79%	76%
Having a web chat feature on the website	47%	48%
Automated alerts when electricity usage exceeds a prearranged threshold	69%	70%
Review and pay your bill online (through utility's website)	71%	72%
Power outage alerts	80%	85%
Tools and calculators to help you manage your electricity consumption	64%	67%
Comparison of your electricity consumption with your neighbours	51%	52%
Automated alert to predict your upcoming bill	56%	55%
Automated alert to remind you of your bill due date	56%	63%

Base: total respondents from the 2016 UtilityPULSE Database

How confident would you say you are in the Ontario electricity industry from electricity generators, regulators and distributors to meet customers' expectations regarding electricity quality, reliability and price?

'Customers are well served by the electricity system in Ontario' – do you agree?		
	Residential	Commercial
Top 2 Box: 'Strongly + somewhat' agree	57%	61%

Base: total respondents from the 2016 UtilityPULSE Database

<b>'Customer are confident in the electricity industry's ability to meet future expectations regarding quality, reliability and price' – do you agree?</b>		
	<b>Residential</b>	<b>Commercial</b>
<b>Top 2 Box: 'Strongly + somewhat' agree</b>	47%	56%

Base: total respondents from the 2016 UtilityPULSE Database

<b>'Customer are confident in the electricity industry's ability to keep up with technological change' – do you agree?</b>		
	<b>Residential</b>	<b>Commercial</b>
<b>Top 2 Box: 'Strongly + somewhat' agree</b>	64%	69%

Base: total respondents from the 2016 UtilityPULSE Database

<b>Knowledge level about the electric utility industry</b>		
	<b>Residential</b>	<b>Commercial</b>
<b>Extremely knowledgeable</b>	5%	3%
<b>Very knowledgeable</b>	15%	16%
<b>Moderately knowledgeable</b>	48%	43%
<b>Slightly knowledgeable</b>	20%	22%
<b>Not very knowledgeable</b>	12%	14%
<b>Don't know</b>	0%	2%

Base: total respondents from the 2016 UtilityPULSE Database

## Method

The findings in this report are based on telephone interviews conducted for Simul Corp. / UtilityPULSE by Logit Group between October 14 - November 8, 2016, with 603 respondents who pay or look after the electricity bills from a list of residential and small and medium-sized business customers supplied by Hydro Ottawa.

The sample of phone numbers chosen was drawn randomly to insure that each business or residential phone number on the list had an equal chance of being included in the poll.

The sample was stratified so that 85% of the interviews were conducted with residential customers and 15% with commercial customers.

In sampling theory, in 19 cases out of 20 (95% of polls in other words), the results based on a random sample of 603 residential and commercial customers will differ by no more than  $\pm 3.99$  percentage points where opinion is evenly split.

This means you can be 95% certain that the survey results do not vary by more than 3.99 percentage points in either direction from results that would have been obtained by interviewing all Hydro Ottawa residential and small and

medium-sized commercial customers if the ratio of residential to commercial customers is 85%:15%.

The margin of error for the sub samples is larger. To see the error margin for subgroups use the calculator at <http://www.surveysystem.com/sscalc.htm>.

Interviewers reached 3,389 households and businesses from the customer list supplied by Hydro Ottawa. The 603 who completed the interview represent a 18% response rate.

The findings for the Simul/UtilityPULSE National Benchmark of Electric Utility Customers are based on telephone interviews conducted with adults throughout the country who are responsible for paying electric utility bills. The ratio of 85% residential customers and 15% small and medium-sized business customers in the National study reflects the ratios used in the local community surveys. The margin of error in the National poll is  $\pm 2.7$  percentage points at the 95% confidence level.

For the National study, the sample of phone numbers chosen was drawn by recognized probability sampling methods to insure that each region of the country was represented in proportion to its population and by a method

that gave all residential telephone numbers, both listed and unlisted, an equal chance of being included in the poll.

The data were weighted in each region of the country to match the regional shares of the population.

The margin of error refers only to sampling error; other non-random forms of error may be present. Even in true random samples, precision can be compromised by other factors, such as the wording of questions or the order in which questions were asked.

Random samples of any size have some degree of precision. A larger sample is not always better than a smaller sample. The important rule in sampling is not how many respondents are selected but how they are selected. A reliable sample selects poll respondents randomly or in a manner that insures that everyone in the population being surveyed has an equal chance of being selected.

How can a sample of only several hundred truly reflect the opinions of thousands or millions of electricity customers within a few percentage points?

Measures of sample reliability are derived from the science of statistics. At the root of statistical reliability is probability, the odds of obtaining a particular outcome by chance alone. For example, the chances of having a coin come up heads

in a single toss are 50%. A head is one of only two possible outcomes.

The chance of getting two heads in two coin tosses is less because two heads are only one of four possible outcomes: a head/head, head/tail, tail/head and tail/tail.

But as the number of coin tosses increases, it becomes increasingly more likely to get outcomes that are either close to or exactly half heads and half tails because there are more ways to get such outcomes. Sample survey reliability works the same way but on a much larger scale.

As in coin tosses, the most likely sample outcome is the true percentage of whatever we are measuring across the total customer base or population surveyed. Next most likely are outcomes very close to this true percentage. A statement of potential margin of error or sample precision reflects this.

Some pages in the computer tables also show the standard deviation (S.D.) and the standard error of the estimate (S.E.) for the findings. The standard deviation embraces the range where 68% (or approximately two-thirds) of the respondents would fall if the distribution of answers were a normal bell-shaped curve. The spread of responses is a way of showing how much the result deviates from the "standard mean" or average. In the Hydro Ottawa data on corporate image,

Simul converted the answers to a point scale with 4 meaning agree strongly, 3 meaning agree somewhat and so on (see in the computer tables).

For example, the mean score is 3.68 for providing consistent, reliable electricity. The average is 2.91 for providing information to help customers reduce their energy costs.

For reliable electricity the standard deviation is 0.54. For providing information to help customers reduce their energy costs, the S.D. is 0.96. These findings mean there is a wider range of opinion – meaning less consensus – about whether help to reduce energy costs than about whether Hydro Ottawa energy supplies are reliable.

Beneath the S.D. in the tables is the standard error of the estimate. The S.E. is a measure of confidence or reliability, roughly equivalent to the error margin cited for sample sizes. The S.E. measures how far off the sample's results are from the standard deviation. The smaller the S.E., the greater the reliability of the data.

In other words, a low S.E. indicates that the answers given by respondents in a certain group (such as residential bill payers or women) do not differ much from the probable

spread of the answers "predicted" in sampling and probability theory.

In certain instances, all of the sub-datasets from the entire UtilityPULSE database for 2016 were concatenated in order to use the average of all the control samples for comparison. The cumulated population base for these questions was in excess of 11,000.

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Good things happen when work places work. You'll receive both strategic and pragmatic guidance about how to improve Customer satisfaction & Employee engagement with leaders that lead and a front-line that is inspired. We provide: training, consulting, surveys, diagnostic tools and keynotes. The electric utility industry is a market segment that we specialize in. Both large and small utilities have received actionable insights. For eighteen years we have been talking to 1000's of utility customers in Ontario and across Canada and we have expertise that is beneficial to every utility.

**Culture, Leadership & Performance –  
Organizational Development**

Leadership development

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**Focus Groups, Surveys, Polls,  
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Diagnostics ie. Change Readiness, Leadership  
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**Customer Service Excellence**

Service Excellence Leadership

Telephone Skills

Customer Care

Dealing with  
Difficult Customers

Benefit from our expertise in Customer Satisfaction, Leadership development, Strategy development or review, and Front-line & Top-line driven-change. We're experts in helping you assess and then transform your organization's culture to one where achieving goals while creating higher levels of customer satisfaction is important. Anyone can present data, or design programs – we believe having an understanding of the industry before doing so is crucial. Call us when creating an organization where more employees satisfy more customers more often, is important.

**Your personal contact is:**

**Sid Ridgley, CSP**

**Phone: (905) 895-7900 Fax: (905) 895-7970 E-mail: [sidridgley@utilitypulse.com](mailto:sidridgley@utilitypulse.com) or [sridgley@simulcorp.com](mailto:sridgley@simulcorp.com)**

# Hydro Ottawa Limited



## 2017 Electric Utility Customer Satisfaction Survey

**The purpose of this report is to profile the connection between Hydro Ottawa Limited (Hydro Ottawa) and its customers.**

The primary objective of the Electric Utility Customer Satisfaction Survey is to provide information to support discussions about improving customer care at every level in your utility.

The UtilityPULSE Report Card® and survey analysis contained in this report do not merely capture state of mind or perceptions about your customers' needs and wants - the information contained in this survey provides actionable and measurable feedback from your customers.

This is privileged and confidential material and no part may be used outside of Hydro Ottawa Limited without written permission from UtilityPULSE, the electric utility survey division of Simul Corporation.

All comments and questions should be addressed to:

Sid Ridgley, UtilityPULSE division, Simul Corporation

Toll free: 1-888-291-7892 or Local: 905-895-7900

Email: [sidridgley@utilitypulse.com](mailto:sidridgley@utilitypulse.com) or [sridgley@simulcorp.com](mailto:sridgley@simulcorp.com)



## Survey Observations & Insights

Customers know they have had an emotional few years with the increased cost of electricity – something they did not control – which in turn frustrated many. In November 2013, time of use rates had increased on average 11.2% over the November 2012 rates. The result as shown in our 2014 Ontario benchmark survey was a 7 point drop in initial satisfaction and a 10 point drop in post satisfaction. TOU prices went up on average 6.7% November 2014 over 2013. November 2015 saw prices which were on average 15.0% over 2014. The Ontario benchmark resulted in a further decline to an 81% initial satisfaction level coupled with a 74% post satisfaction level in the Fall of 2016.

By the spring/summer 2016 it was clear to all a significant number of customers had moved from “worried” to “angry” about the costs of electricity. The Ontario Energy Board (OEB) did not change prices in November 2016 price from May 2016, potentially the ‘no change’ was in response to the outcry from customers. In the Spring 2017 a large reduction in prices was announced. These two actions not only stopped a further decline in satisfaction, they have helped put customers on a path towards increased satisfaction, confidence and trust.

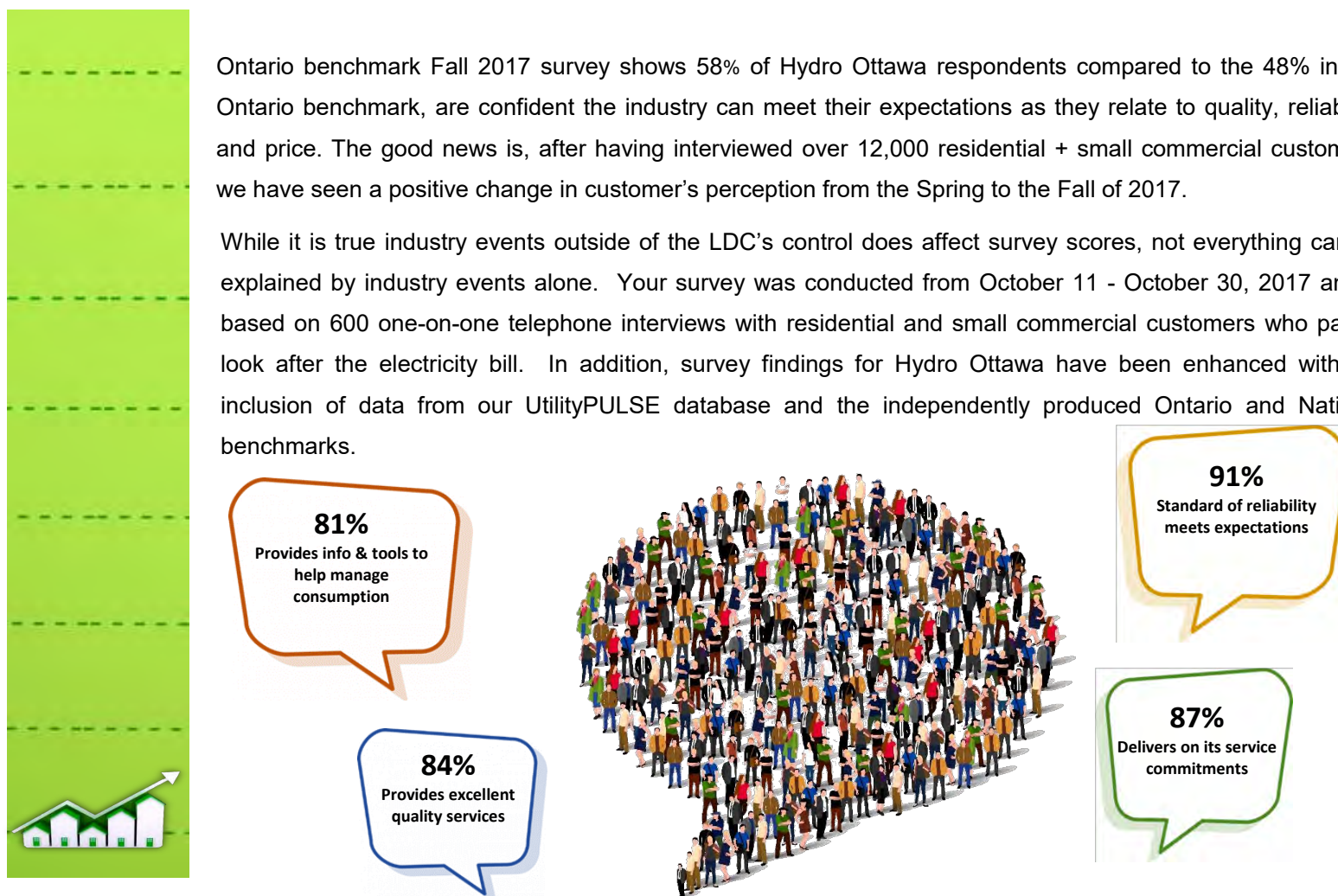
A couple of items to note. There are many factors which influence important measures such as satisfaction; the reality is a customer’s ability to pay is one of the strongest correlated items. Electricity pricing is out of the hands of the LDC which means the customer’s perception of their LDC’s performance is also affected.

Just because prices dropped, something customers appreciate, this hasn’t translated to an “all is forgiven” attitude. Customers will need a lot more time to forgive the industry for what they have had to endure. The



Ontario benchmark Fall 2017 survey shows 58% of Hydro Ottawa respondents compared to the 48% in the Ontario benchmark, are confident the industry can meet their expectations as they relate to quality, reliability and price. The good news is, after having interviewed over 12,000 residential + small commercial customers we have seen a positive change in customer's perception from the Spring to the Fall of 2017.

While it is true industry events outside of the LDC's control does affect survey scores, not everything can be explained by industry events alone. Your survey was conducted from October 11 - October 30, 2017 and is based on 600 one-on-one telephone interviews with residential and small commercial customers who pay or look after the electricity bill. In addition, survey findings for Hydro Ottawa have been enhanced with the inclusion of data from our UtilityPULSE database and the independently produced Ontario and National benchmarks.



Base: total respondents:  
 Top 2 Boxes: "Strongly agree + agree"

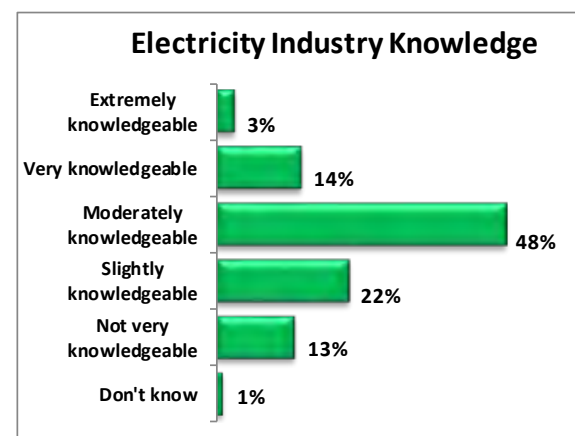
## Electricity Industry Knowledge

Most people, until recently, have not needed to know much about the LDC industry. However, with increased prices, time-of-use pricing and messaging around conservation, customers have been encouraged to take an active interest in their electricity consumption. In addition, every LDC has increased their customer engagement activities to gather input from customers regarding many subjects which are of interest to customers.

There are proponents in the industry who believe having a better understanding of how the industry works will result in a more favourable view of their LDC. We asked respondents, to self-assess their knowledge level about the electricity industry. Hydro Ottawa respondents who said they were 'extremely or very knowledgeable' had a satisfaction score of 80%, while those who said they were 'slightly or not very knowledgeable' had a satisfaction score of 89%. Being more knowledgeable doesn't necessarily translate to higher satisfaction!

16% of respondents for Hydro Ottawa described themselves as Extremely or Very knowledgeable about the electric utility industry. 48% claim they are moderately knowledgeable.

Approximately 1 in 5 (18%) survey participants in the UtilityPULSE database describe themselves as Extremely knowledgeable or Very knowledgeable. Approximately 1



Base: total respondents

in 3 survey respondents describe themselves in the bottom 2 categories of knowledge, and 63% of this group said they agree 'strongly + somewhat' customers are well served, 9 points higher than the knowledgeable group at 54%.

For purposes of clarity, there are customers who certainly want to be knowledgeable about the industry. Therefore, it is important for the LDC to have information, tools, website information which feeds the need for knowledge acquisition. As we have said in the past, some will want to be knowledgeable and appreciate the information given, some will not. The UtilityPULSE database does not support the notion that customers who are knowledgeable about the industry have a better perception about their LDC – actually it is the opposite. LDCs should not rely on an education strategy to make a positive difference in how a customer looks at their LDC. However, LDCs should rely on an education strategy to help customers make best use of the tools and information available to manage their electricity needs. It is true, when LDCs make data available (some) people will use the data to come up with solutions.

### Loyalty Groups

Customer Loyalty Groups				
Hydro Ottawa	Secure	Favorable	Indifferent	At Risk
2017	20%	13%	54%	12%

Base: total respondents

Why is there a need to be concerned about, and measure customer loyalty (affinity) when, in fact, a customer cannot leave an LDC?

It is human nature, and societal practice, for individuals and companies for that matter, to form some level of affinity towards the people or companies which provide them support/service. The level of affinity can run from being adversarial to neutral to fully collaborative, or somewhere in-between. Secure customers (those who are satisfied with their LDC, want to continue with and would recommend their LDC) are more resilient and forgiving when issues occur. At Risk customers, are already upset even before an issue takes place and therefore they are much quicker to anger. At Risk customers put more strain on the customer care systems.

The UtilityPULSE database tells us that 75% of Secure customers would strongly + somewhat agree they are confident in the industry's ability to meet their future expectations. At Risk customers are at 20%. 83% of Secure customers would strongly + somewhat agree the industry can keep up with technological changes. At Risk customers are at 37%. The UtilityPULSE database doesn't support the notion that industry knowledge is a prerequisite to having a high affinity towards the LDC. Customer loyalty/affinity is more of a function of doing the job as promised, fixing issues quickly with professionalism, and demonstrating respect for the customer.

### Customer Commitment

Electricity customers' loyalty – ... Is a company that you would like to continue to do business with			
	Hydro Ottawa	National	Ontario
<b>Top 2 Boxes: 'Definitely + Probably' would continue</b>	79%	78%	73%

Base: total respondents



## Customer Advocacy

Electricity customers' loyalty – ... is a company that you would recommend to a friend or colleague			
	Hydro Ottawa	National	Ontario
<b>Top 2 boxes: 'Definitely + Probably' would recommend</b>	68%	71%	63%

Base: total respondents

One of the measures on the OEB's LDC scorecard is Customer satisfaction. However focusing on customer satisfaction as a sole measure is not enough to gain a picture about how well an operating unit/enterprise might be doing. Customer satisfaction is an outcome measure on the historical relationship or current delivery of services.

We define it as: *"Satisfaction happens when an enterprise's core services meet or exceed customer's needs, wants, or expectations."*

## Customer Satisfaction

SATISFACTION SCORES – Electricity customers' satisfaction			
	Hydro Ottawa	National	Ontario
<b>Top 2 Boxes: 'very + fairly satisfied'</b>			
<b>PRE: Initial Satisfaction Scores</b>	90%	90%	85%
<b>POST: End of Interview</b>	87%	87%	81%

Base: total respondents

The key then is to be operationally effective and demonstrate the LDC actually cares about its customers. Survey respondents gave Hydro Ottawa excellent operational scores.

Operational Attributes			
	Hydro Ottawa	National	Ontario
<b>Provides consistent, reliable energy</b>	93%	90%	89%
<b>Quickly handles outages and restores power</b>	88%	87%	85%
<b>Accurate billing</b>	85%	85%	82%

Base: total respondents with an opinion

Hydro Ottawa representatives also do their part:

Representative Attributes			
	Hydro Ottawa	National	Ontario
<b>Deals professionally with customers' problems</b>	84%	84%	81%
<b>Is 'easy to do business with'</b>	80%	82%	79%
<b>Customer-focused and treats customers as if they're valued</b>	75%	72%	72%

Base: total respondents with an opinion



Being operationally efficient and customer service effective are two of the primary ingredients needed to build strong customer affinity levels. Doing what is promised (operationally) and providing professional service is important. However, going forward LDCs need to demonstrate the “care” in the words “Customer Care”.

Respondents of the Ontario benchmark survey were asked if they agreed that their LDC cared about them as customers. Only 48% agreed that their LDC cared about them as customers while 37% disagreed. Interesting 78% of Secure customers vs 12% of At Risk customers thought their LDC actually cares about them.



Customers believe their electric utility actually cares about its customers	
	Ontario
Top 2 Boxes: 'Strongly + somewhat agree'	48%
Bottom 2 Boxes: 'Strongly + somewhat disagree'	37%

Base: total respondents from the 2017 Ontario Benchmark

Most of us want the same things when we are customers: We want to be treated with respect. We want to be listened to. We don't want to be bounced around or ignored or treated as inferior. The customer experience is largely defined through the customer service received and the front-line staff with whom they interact.

## Customer Service

Satisfaction with Customer Service			
Top 2 Boxes: 'very + fairly satisfied'	Hydro Ottawa	National	Ontario
The time it took to contact someone	74%	67%	66%
The time it took someone to deal with your problem	69%	63%	57%
The helpfulness of the staff who dealt with you	74%	67%	66%
The knowledge of the staff who dealt with you	70%	64%	74%
The level of courtesy of the staff who dealt with you	84%	74%	79%
The quality of information provided by the staff who dealt with you	70%	67%	76%

Base: total respondents who contacted the utility

Consistency in delivering service quality is derived from corporate culture; and one of the most important culture foundational elements is the organization's philosophy and strategy it has for its customers. Delivering quality service means understanding and then meeting customer expectations on a consistent basis. Utilities should foster work environments where every single employee is encouraged to consider it their job to recommend ways to innovate, save money and serve customers better. Empowerment is the backbone of the service recovery principle. In the face of error or problems, acting quickly and decisively, being empowered and turning a dissatisfied customer into a satisfied one tends to have a positive impact.

### Problems: Power Outages & Billing issues

Outages are the most frequent customer problem, but billing problems are much more likely to motivate customers to complain to the company.

### Problems: Power Outages

Percentage of Respondents indicating that they had a Blackout or Outage problem in the last 12 months			
	Hydro Ottawa	National	Ontario
<b>2017</b>	33%	37%	38%

Base: total respondents

### Problems: Billing issues

Percentage of Respondents indicating that they had a Billing problem in the last 12 months			
	Hydro Ottawa	National	Ontario
<b>2017</b>	13%	12%	15%

Base: total respondents



### Customer Experience Performance rating (CEPr)

The Customer Experience Performance rating (CEPr) score is an effectiveness rating and is affected by many dimensions of service. Every touch point with customers on the phone, website or in-person influences what customers think and feel about the organization. While an excellent transaction today creates a positive experience today, the perception created is, future transactions will be excellent too.

Of course, a negative transaction creates the perception future transactions will also be negative.



Customer Experience Performance rating (CEPr)			
	Hydro Ottawa	National	Ontario
<b>CEPr: all respondents</b>	84%	83%	81%

Base: total respondents



For many LDCs inbound calls have been declining because customers can use various technology options. However, this means the CSR volume of calls will move towards the higher level of complexity and customization as they relate to various problems and issues Customers face. We're already seeing call lengths expanding. As such, the need for focused training, coaching, mentoring and performance feedback will remain high. In addition, the challenge, both from a strategic and operational perspective, is to decide what may be an optimum level of automated/technological service level vs human interaction service levels.

### Customer Centric Engagement Index

The UtilityPULSE database data from our 20-year research history shows there has been some major social shifts in the attitudes of customers. For one, there is a higher expectation from customers they will be involved in decisions which affect them. Hence the need for meeting customer engagement expectations. The OEB has also recognized this and as a result have put more emphasis on ensuring that LDCs are engaging their customers. Second, there is a higher expectation an operating enterprise such as a LDC, is more than a provider of electricity and a provider of good jobs to society.

As we have stated in previous reports: Customer engagement is not about getting agreement (though it would be nice to do so), customer engagement is about ensuring there is an understanding of customer wants and needs; particularly when the possibility of an increase in cost is involved. Engagement is how customers think, feel and act towards the organization. Ensuring customers respond in a positive way requires they be rationally satisfied with the services provided AND emotionally connected to the LDC and its brand.



Utility Customer Centric Engagement Index (CCEI)			
	Hydro Ottawa	National	Ontario
<b>CCEI</b>	79%	78%	76%

Base: total respondents

Hydro Ottawa, has received good agreement scores as they relate to providing information and tools to help customer reduce costs (79%) and providing information and tools to help manage electricity consumption (81%).

### Credibility & Trust Index

In a world of uncertainty, dealing with people and enterprises that are trusted and credible are comforting. Hydro Ottawa Credibility & Trust score is 81% while the Ontario benchmark is 78% and the National benchmark is 80%.



Attributes strongly linked to Credibility & Trust			
	Hydro Ottawa	National	Ontario
<b>Keeps its promises to customers and the community</b>	76%	78%	75%
<b>Pro-active in communicating changes and issues affecting Customers</b>	77%	75%	74%
<b>Is a trusted and trustworthy company</b>	80%	82%	76%

Base: total respondents with an opinion

An interesting finding: Respondents who thought their LDC was pro-active in communicating had scores which were 1/3 higher than respondents who didn't think their LDC was pro-active in other attributes such as: trust, respect, spends money prudently and cost effectiveness.

Another interesting aspect about Credibility & Trust - the LDC must be seen by its customers as knowledgeable about the services provided. Customers must also believe the LDC will act with their best interests in mind and will conduct its business in a professional manner.

### UtilityPULSE Report Card®

Hydro Ottawa's UtilityPULSE Report Card®				
Performance				
	CATEGORY	Hydro Ottawa	National	Ontario
1	<b>Customer Care</b>	<b>B+</b>	<b>B</b>	<b>C+</b>
	Price and Value	B	B	C
	Customer Service	B+	B+	B
2	<b>Company Image</b>	<b>B+</b>	<b>B+</b>	<b>B</b>
	Company Leadership	B+	B+	B
	Corporate Stewardship	B+	B+	B
3	<b>Management Operations</b>	<b>A</b>	<b>A</b>	<b>A</b>
	Operational Effectiveness	A	A	A
	Power Quality and Reliability	A	A	A
<b>OVERALL</b>		<b>A</b>	<b>B+</b>	<b>B</b>

Base: total respondents

### Lowest scoring attributes

Low scoring attributes			
Top 2 Boxes: 'Strongly + Somewhat agree'	Hydro Ottawa	National	Ontario
Spends money prudently	71%	71%	66%
Operates a cost effective electricity system	65%	71%	60%
Provides good value for your money	66%	62%	57%
Cost of electricity is reasonable when compared to other utilities	58%	62%	52%

Base: total respondents with an opinion

### Highest scoring attributes

High scoring attributes			
Top 2 Boxes: 'Strongly + Somewhat agree'	Hydro Ottawa	National	Ontario
Provides consistent, reliable electricity	93%	90%	89%
Makes electricity safety a top priority for employees and contractors	89%	87%	87%
Quickly handles outages and restores power	88%	87%	85%
Has a standard of reliability that meets expectations	91%	88%	86%

Base: total respondents with an opinion



## Use of Technology

Technology is fundamentally reshaping customer care in both the short and longer terms. The expectation is, technology will reduce the number of inbound calls by empowering customers to get the technical or service support they need to solve many of the problems which exists.

The effect of technological changes on people's lives will lead to a future that is ...	
Hydro Ottawa	
<b>Mostly better</b>	57%
<b>Mostly worse</b>	6%
<b>Neither</b>	29%
<b>Don't know</b>	8%

Base: total respondents

Respondents were asked how important having online access to the following features was to them:

Importance of online access for the following features:		
Top 2 Boxes: 'very + somewhat important'	Hydro Ottawa	UtilityPULSE Database
Reporting or inquiring about an issue	78%	74%
Researching information about energy conservation	85%	79%
Having a web chat feature on the website	50%	51%
Automated alerts when electricity usage exceeds a prearranged threshold	72%	72%
Review and pay your bill online (through utility's website)	70%	69%
Power outage alerts	82%	81%
Tools and calculators to help you manage your electricity consumption	69%	68%
Comparison of your electricity consumption with your neighbours	53%	51%
Automated alert to predict your upcoming bill	58%	59%
Automated alert to remind you of your bill due date	61%	61%

Base: total respondents / total respondents from the 2017 UtilityPULSE Database

### Accessing Utility's Website

The internet is starting to change the way utilities interact with their customers. The mandate - besides cutting costs - is to provide a richer, more productive experience than telephone communications for everything from setting up a new account to accessing information about a billing statement. The vision is to reinvent customer service, become more responsive and seamless and offer more tailored and focused service.

Canadians are making greater and more diverse use of the internet however, there still exists a gap in the rate of internet use among certain groups of Canadians on the basis of income, education and age.

Take for example the demographic of age; 58% of the 18-34 age group accessed Hydro Ottawa's website vs 39% of those aged 55+. Overall, about half of Hydro Ottawa's customers claimed to have accessed the website.

Within the last year have you accessed your local utility's website?	
Hydro Ottawa	
Yes	49%
No	50%

Base: total respondents



Customers want their questions answered and their problems solved quickly. Phone calls are no longer the only option to reach a support team. Company websites if developed properly allows you to provide online support to your customers without requiring any interaction with a representative from your company. Many of

your customers are prepared to find the answers they need themselves by going online and accessing your utility's website.

However, a website can only be effective if it is easy to use. To achieve this, your customer service knowledge base and FAQs need to be easily accessible and up to date. Announcements or notices should be clearly visible. Customers should be able to access your website via desktop, tablet and mobile devices.

If a customer can find information quickly, this can reduce the number of calls or emails your support team receives and lead to a greater customer experience.

Reasons for having accessed the utility's website	
	Hydro Ottawa
Billing problem	45%
Rate information e.g. time-of-use, cost of electricity	15%
Get information about outages e.g. look at outage map	14%
Electricity consumption data	13%
Conservation information / rebates & incentives	5%
Moving/setting up a new account	4%
Regulatory information	2%
Contact information	2%
Forms and applications	1%
Maintenance or repair request	1%

Base: total respondents who claimed to have accessed the website in the past 12 months



## Outage Map

Customers have increased their expectations as it relates to getting information about outages. What makes the dissemination of information challenging for the LDC is the need to provide the information via multiple media channels and in a timely manner whilst trying to get the power restored. The perception of competency and value of the LDC are certainly linked to the frequency and duration of power outages.

Being seen as effective during an outage situation from the point of view of a customer requires:

- timely information on outages is provided
- utilities understand that even a short outage in duration is impactful
- in large scale events, utilities should proactively provide tips on how to prepare for extended outages
- being kept informed about what is going on during an outage makes customers feel valued.
- An outage map can provide greater access to the information customers need to help their utility restore their power quickly in the event of an outage. It also provides information to help customers manage their lives and reduce or mitigate any inconvenience.

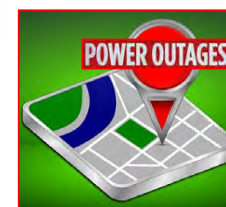


Power outages are going to occur – be they planned or unforeseen. However, customer expectations are changing as speed of information becomes the standard in any service transaction. Realistic and reliable outage reports, estimated time of power restoration and status updates via multiple communication channels are

expected. Because the manner of outage communication can have a significant impact on customer satisfaction, utilities must ensure they are continuously improving their processes for outage communications.

Customers were asked the likelihood of accessing their utility's website to view an outage map during an outage event.

**60%** of customers said they would likely access **Hydro Ottawa's website to view an outage map**. Base: total respondents: Top 2 Boxes: 'Very + somewhat likely'



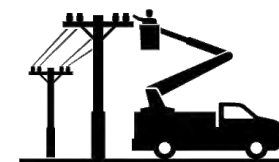
From a demographic viewpoint, 78% of younger respondents (age: 18-34) vs 47% of older respondents (age:55+) are likely to access the outage map on Hydro Ottawa's website. From a gender viewpoint, 64% of male respondents vs 54% of female respondents are likely to access the outage map on Hydro Ottawa's website. From an income bracket point of view, 73% of income earners under \$30k vs 61% of income earners over \$75k are likely to access the outage map on Hydro Ottawa's website.

When an outage event occurs, customers are often taken off guard. Not sure if it is going to be temporary or lasting several hours – is it widespread throughout the community or localized to a small area - is the utility aware there is a problem – what is estimated time of restoration?

Respondents were asked the importance of being able to verify that their utility knew when an outage event was taking place in the service area.



**94%** of customers felt it was important to be able to verify that **Hydro Ottawa** was aware of an outage event. Base: total respondents: Top 2 Boxes: 'Very + somewhat important'



Calling the utility for customer service and instantly getting a recorded message indicating a power outage is in progress and it is being worked on can go a long way in keeping customers calm as well as, accessing the company website and viewing an outage map that indicates the current outage problems that are in progress. Knowing that someone is aware of the problem translates into someone is working on getting the problem resolved – which is what every customer wants.

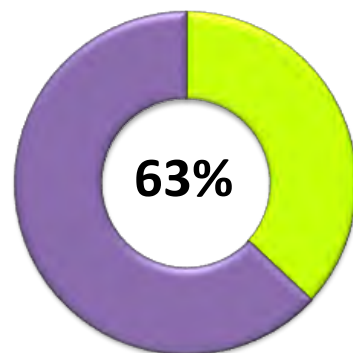
Regardless of demographics (age, income, gender), at least 9 out of 10 people felt it was important to be able to verify that Hydro Ottawa was aware of an outage problem.

**90%** of customers felt it was important for **Hydro Ottawa** to provide an estimate of time for power restoration on their website. Base: total respondents: Top 2 Boxes: 'Very + somewhat important'



### Confidence in the Industry

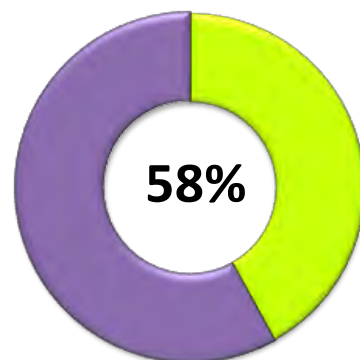
Respondents have a perception about the electricity industry as a whole. That image influences how people (customers) think and feel about various industry participants. Confidence represents a filter affecting customers' perception about their LDC. For example, on the subject of customer satisfaction, the UtilityPULSE database shows those survey respondents who had high confidence levels about the industry scored 14% higher than those who had low confidence. This variance has little to do with the actual numbers or facts about the LDCs performance.



in Ontario' – do you agree? Base: total respondents

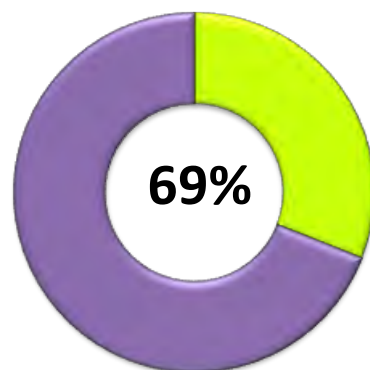
(strongly + somewhat') customers are well served by the electricity  
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 der an opinion or did not know

**'Customers are confident in the electricity industry's ability to meet their future expectations regarding quality,**



ts  
 strongly + somewhat') customers are confident the electricity  
 the ability to meet future expectations regarding quality, reliability  
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 ('strongly + somewhat') the industry can deliver on future  
 der an opinion or did not know

**Customers are confident in the electricity industry's ability to keep up with technological changes'**



strongly + somewhat') customers are confident the electricity  
 to keep up with technological changes  
 ee nor disagree  
 ('strongly + somewhat') the industry will keep up with changing  
 der an opinion or did not know

## Paying for electricity

For 19 years, one of the highest factors correlated to satisfaction is ability to pay.

Is paying for electricity a worry or a major problem?				
	Not a worry	Sometimes	Often	Depends
Hydro Ottawa	73%	18%	7%	1%
National	67%	19%	11%	1%
Ontario	61%	26%	10%	1%

Base: total respondents

## Numbers at a Glance

	Hydro Ottawa	National	Ontario
Customer Satisfaction: Initial	90%	90%	85%
Customer Satisfaction: Post	87%	87%	81%
Overall Satisfaction with most recent experience	76%	74%	69%
Customer Experience Performance Rating (CEPr)	84%	83%	81%
Customer Centric Engagement Index (CCEI)	79%	78%	76%
Credibility & Trust Index	81%	80%	78%
UtilityPulse Report Card®	B+	B+	B

The wants and needs of a customer are not much different than the wants and needs of the LDC. Both want a reliable supply of electricity at a good price, both want rates to be somewhat predictable, both want to be

financially strong and both prefer to plan for the future. Both are affected by massive amounts of technological change and both desire more control. We recommend adopting a marketing-communications plan which demonstrates the LDC is credible, can be trusted and it cares. It is far less likely for customers who feel they have been heard and understood to start throwing stones.

Customer engagement is not about getting permission – it is about earning enough trust to secure support for what the LDC could be doing to ensure reliability of supply, professional maintenance and issue recovery resourcing, and reasonable pricing. This is done by undertaking a sufficient number of customer engagement activities to ensure the LDC has heard and understands the needs, wants, and aspirations of its customers.

From a social point of view, when given a choice, people tend to make healthier, safer, better-for-you type choices as long as it's within a reasonable cost premium. The LDC customer has demonstrated they will spend money and time to reduce consumption and manage their electricity – but the cost premium for electricity got out of hand. What LDCs know, there was a growing league of angry customers which was impacting performance by the spring of 2017. What LDCs may not know is, in the years where price increases were double digits there was a real and substantially negative hit on virtually every dimension an LDC was measured on, while in the years prices were single digits, the impact – if any – was minimal. This tells us most LDC customers will cope with reasonable price increases and not specifically blame their LDC.

The challenge for most LDCs is to figure out a strategy for moving their organization into the future. Should it pursue a “lowest price” strategy? Or a “climate sensitive” strategy? Or a “modern enterprise” strategy. Or some combination of each. At the end of the day some customers will support the decisions of the LDC and



others won't. The key is to demonstrate understanding of all customer and other stakeholder perspectives and then making a decision which reflects those perspectives.

Hydro Ottawa is what is known as an influential brand company. A company that is part of people's daily lives and routines as well as being able to make life better, more interesting and meaningful. A status the vast majority of companies would love to have. Remaining relevant as an influential brand starts with recognizing that LDCs do have an impact on daily life. It also means constant reinforcement of the key drivers of influence: credibility, trust, future-oriented, true caring for customers, professionalism, high-standards, and corporate citizenship. Pro-active communications while enhancing the psychological value of its brand are important activities to help customers feel confident their LDC can meet both today's & tomorrow's challenges.

As always, we recommend having meaningful two-way dialogue with employees (and others) to leverage the results from your 2017 customer satisfaction survey derived from speaking with 600 Hydro Ottawa customers [October 11 - October 30, 2017]. Thoughtful discussion turns data into information and insights which lead to benefits for all parties.

**UtilityPULSE**

Sid Ridgley  
Simul/UtilityPULSE  
Email: [sidridgley@utilitypulse.com](mailto:sidridgley@utilitypulse.com) or [sridgley@simulcorp.com](mailto:sridgley@simulcorp.com)

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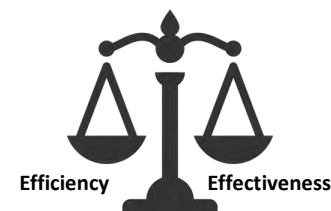
## Satisfaction (pre & post)

Measuring satisfaction is an important starting point, for the creation of loyal customers. However, it is a misnomer to conclude that highly satisfied customers are also customers with a high affinity or loyalty quotient. One can be satisfied but not necessarily loyal. But it is true to conclude that the LDC (its people) must do the job as expected and required before there can be a positive emotional connection.

We've stated in the past, a focus on satisfaction prompts an organization to continue to evolve in ways which make sense to those who pay the bills. A focus on satisfaction is a focus on effectiveness in the delivery of service to the customer. Satisfied customers who trust their LDC may be more likely to seek advice i.e. energy efficiency methods, and may be more receptive to important messages i.e. safety, new capital projects, etc.

About ratings/measures:

- Satisfaction is not a program, it is an outcome.
- **Efficiency** is about achieving objectives with the minimum amount of people, time, money and other resources.
- **Effectiveness** ratings are measures keeping the organization and its people more future focused than efficiency ratings

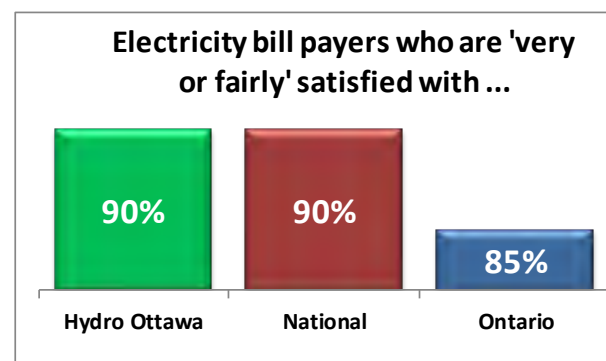


Finding the right balance between efficiency and effectiveness measures is difficult.

Efficiency ratings won't lead to satisfaction, but they can lead to dissatisfaction. Taking 90 seconds to answer the phone will create an agitated customer who, for the most part starts off being dissatisfied with the service – before you've even had a chance to deal with or solve their problem. Answering the phone in 20 seconds but not solving the customer's problem is not going to ameliorate the customer's perception about the transaction.

Customer expectations of their electricity LDC have evolved past the “provide electricity reliably, safely and billed both accurately with fair pricing”. They do expect their LDC to be ethical, forward-thinking, competent and trustworthy.

- **Satisfaction** happens when utility core services meet or exceed customer's needs, wants, or expectations.
- **Loyalty** occurs when a customer makes an emotional connection with their electric utility on a diverse range of expectations beyond core services.



Base: total respondents

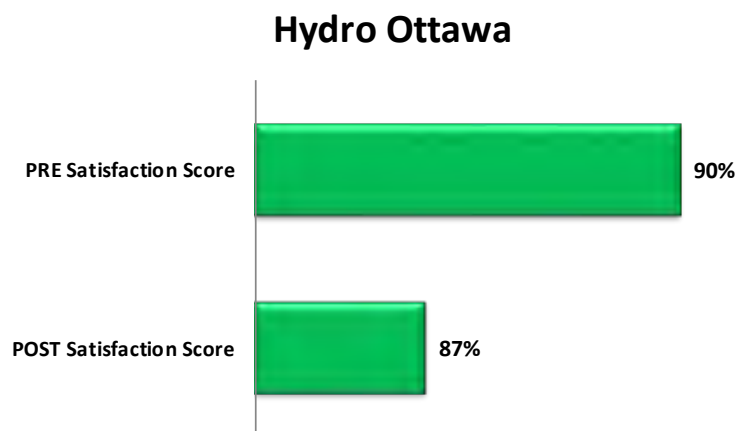
Satisfaction alone does not make a customer loyal; a willingness to commit and advocate for a company along with satisfaction identifies the three basic customer attitudes which underpin loyalty profiles. While satisfaction is

an important component of loyalty, the loyalty definition needs to incorporate more attitudinal and emotive components.

Electricity bill payers who are 'very or fairly' satisfied with...					
	2017	2016	2015	2014	2013
Hydro Ottawa	90%	81%	87%	82%	90%
National	90%	86%	89%	89%	90%
Ontario	85%	81%	86%	83%	90%

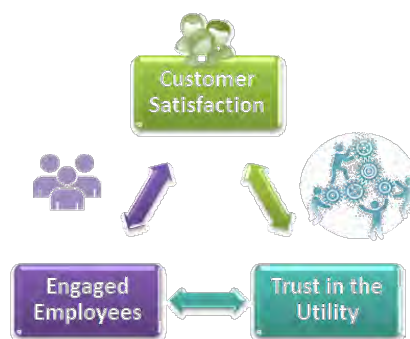
Base: total respondents / (-) not a participant of the survey year

In the Simul/UtilityPULSE Customer Satisfaction survey, the overall satisfaction question is asked both at the beginning (PRE) and the end (POST). Asking the general satisfaction question at the start of the survey avoids bias and we obtain a spontaneous rating. This allows measurement of customers' overall impressions of the utility prior to prompting them to think of specific aspects of the relationship. After we have asked about specific aspects of the customer experience, we gain a more *considered* (or conditioned) response.



Base: total respondents

As with any enterprise, Hydro Ottawa has an obligation to satisfy its customers. But the rewards for satisfying customers go far beyond “obligation”. Customers with high levels of satisfaction handle problems far better than customers with low satisfaction. For employees, serving customers who are very satisfied are more enjoyable interactions than with customers who are very dissatisfied. Satisfied and engaged employees who work in an organizational culture which promotes service excellence with empowerment is an important key for completing the job both efficiently and effectively.



SATISFACTION SCORES – Electricity customers' satisfaction			
Top 2 Boxes: 'very + fairly satisfied'	Hydro Ottawa	National	Ontario
PRE: Initial Satisfaction Scores	90%	90%	85%
POST: End of Interview	87%	87%	81%

Base: total respondents

A mutual correlation exists between employee and customer attitudes and loyalty. Employees who are trained well, have the right tools and are focused on successful outcomes for customers contribute greatly to the customers' perception of their utility. There is a direct, irrefutable link between empowered and engaged employees and customer satisfaction – after all -- *your employees are part of your brand and they deliver the promises you make.*

#### Hydro Ottawa

SATISFACTION SCORES – Electricity customers' satisfaction		
Top 2 Boxes: 'very + fairly satisfied'	Residential	Commercial
Satisfaction Scores	90%	90%

Base: total respondents

SATISFACTION SCORES – Electricity customers' satisfaction [kwh usage]			
Top 2 Boxes: 'very + fairly satisfied'	kWh Group 1	kWh Group 2	kWh Group 3
Satisfaction Scores	92%	89%	91%

Base: total respondents

SATISFACTION SCORES – Electricity customers' satisfaction [Income]			
Top 2 Boxes: 'very + fairly satisfied'	<\$30K	\$30 – 75K	\$75K +
Satisfaction Scores	90%	94%	88%

Base: total respondents

## Customer Service

Given the rapidly expanding availability and use of technology finding an appropriate balance between automated self-service and human-interactive service is a huge challenge for all involved in providing service to customers. Customer Service is about the experience your customers have with your utility, your products and your service – regardless of the channel for used for delivering customer service. The goal is to ensure each of your customers receives high quality customer service and an experience which meets or exceeds their expectations - on each and every interaction with the LDC.



Given the increased complexity for delivery customer service we have seen a shift towards a stronger focus on the touch points which create the customer experience.

Most of us want the same things when we are customers: We want to be treated with respect. We want to be listened to. We don't want to be bounced around or ignored or treated as inferior. The customer experience is largely defined by the outcomes generated when customers have a need, want to solve a problem, or simply want answers to issues/concerns they face.

With more technology there will be more shifting of calls away from the call centre. However, the volume of calls which remain are and will be more complex and challenging. We're already witnessing the fact that calls are taking longer to deal with customer issues.

Customers are more concerned about outcomes and they want their issue, problem or concern to be deal with in a professional, knowledgeable, and timely manner. Respondents, were asked about six aspects of their most recent experience with a representative from Hydro Ottawa.

- Information – quality of information provided
- Staff attitude – level of courtesy
- Professionalism – the knowledge of staff
- Delivery – helpfulness of staff
- Timeliness – the length of time it took to get what they needed
- Accessibility – how easy it was to contact someone



Base: total respondents who contacted the utility

Satisfaction with Customer Service			
Top 2 Boxes: 'very + fairly satisfied'	Hydro Ottawa	National	Ontario
The time it took to contact someone	74%	67%	66%
The time it took someone to deal with your problem	69%	63%	57%
The helpfulness of the staff who dealt with you	74%	67%	66%
The knowledge of the staff who dealt with you	70%	64%	74%
The level of courtesy of the staff who dealt with you	84%	74%	79%
The quality of information provided by the staff who dealt with you	70%	67%	76%

Base: total respondents who contacted the utility

Overall satisfaction with most recent experience			
	Hydro Ottawa	National	Ontario
Top 2 Boxes: 'very + fairly satisfied'	76%	74%	69%

Base: total respondents who contacted the utility

Every interaction with a customer is an opportunity to generate higher levels of affinity. It is fool-hardy to view the ratings shown above as ratings for the “call-centre” because every person in Hydro Ottawa interacts with a customer or supports those who do have person-to-person contact with a customer. Empowerment is the backbone of the service recovery principle. In the face of error or problems, acting quickly and decisively, being empowered and turning a dissatisfied customer into a satisfied one tends to have a positive impact.

## Customer Focus – Service Quality

Current measures in the LDC scorecard are: New Residential Services Connected on Time; Scheduled Appointments Met on Time; and, Telephone Calls Answered on Time. These are good examples of efficiency measures as all are time based. Showing up on time may not create satisfaction; not showing up on time will cause dissatisfaction.



UtilityPULSE findings from working with many LDCs over the past few years indicate it is much harder to get great ratings from customers who may not know much about their LDC's standards for service. Despite this, service quality ratings for Hydro Ottawa are very good and above the Ontario benchmark.

Other dimensions of Service Quality which customers value include:

Customer Service Quality			
Top 2 boxes, 'strongly + somewhat agree'	Hydro Ottawa	National	Ontario
Deals professionally with customers' problems	84%	84%	81%
Customer-focused and treats customers as if they're valued	75%	72%	72%
Is a company that is 'easy to do business with'	80%	82%	79%

Base: total respondents with an opinion

We live in an imperfect world, so mistakes are bound to happen. In the LDC world not all customer problems are mistakes, some are externally driven. None-the-less customers expect professionalism when interacting with "their" LDC.

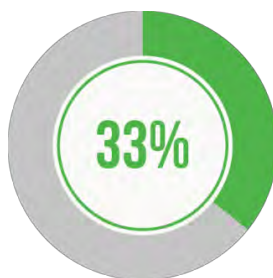
## Bill Payers' Problems and Problem Resolution

Outages and billing problems, we call them the “Killer B’s”, the two issues which are most likely to cause grief to utility customers.



At one time, if the power went off for a few minutes, it was considered annoying and inconvenient. However, with the onset of computers and smart appliances in homes and businesses, a power outage is now unbearable. Customers have little tolerance for an interruption in their flow of electricity.

LDCs have certainly been putting more energy into disseminating information to customers about outages. Many have installed an “outage map” on their website. However our UP database shows only 13% of customers who accessed their LDC’s website did so to get information about an outage or look at the outage map!



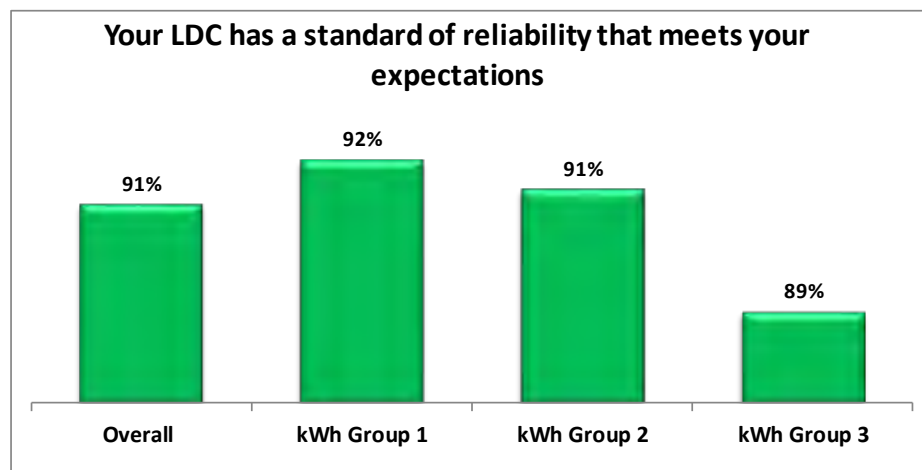
33% of Hydro Ottawa respondents claimed they experienced an outage problem in the past 12 months.

Like it or not, there will be times when the power goes off – and for reasons beyond the control of the LDC.

Percentage of Respondents indicating that they had a Blackout or Outage problem in the last 12 months			
	Hydro Ottawa	National	Ontario
<b>2017</b>	33%	37%	38%
<b>2016</b>	31%	46%	46%
<b>2015</b>	30%	53%	51%
<b>2014</b>	29%	47%	49%
<b>2013</b>	28%	41%	35%

Base: total respondents / (-) not a participant of the survey year

91% of Hydro Ottawa respondents agree ('strongly + somewhat') the utility's standard of reliability is consistent with their expectations.



Base: total respondents

For nearly every business, the simple act of collecting payments from customers is actually quite complex. Organizations want to make it easy and convenient for customers to pay, so they offer multiple choices of payment types and channels. However, making it easy for the customer often makes it more complex—and costly—for the business and is certainly not without its problems or flaws.

Percentage of Respondents indicating that they had a Billing problem in the last 12 months			
	Hydro Ottawa	National	Ontario
2017	13%	12%	15%
2016	25%	15%	25%
2015	14%	9%	15%
2014	20%	16%	25%
2013	11%	8%	10%

Base: total respondents / (-) not a participant of the survey year



The impact of poor billing on a utility's business is considerable, in terms of costs incurred handling customer queries and complaints. The quality of billing remains a driving force behind managing customer satisfaction and can help utilities reduce costs associated with customer service. Through reducing the total number of calls to a utility by providing accurate bills which are easily understood, a utility stems the flow of billing-related complaints into its call-centre. However, customers have a different definition than their utility as to what constitutes a billing problem.

Types of Billing Problems	
Hydro Ottawa	
The amount owed was too high	66%
Complaint about rates or charges	9%
The bill arrived late	5%
Too many extra charges	5%
The bill was difficult to understand	4%
Wrong information on bill	4%
Did not receive bill	4%
Payment incorrectly recorded	4%

Base: total respondents with billing problems



27% of Hydro Ottawa respondents with an outage problem did contact the utility;

36% of Hydro Ottawa respondents with a billing problem did contact the utility.

First Contact Resolution (FCR) rates are an important metric for improving call center performance. The first step in improving “FCR” is to survey your front-line customer touch-points and understand what kind of assistance and information customers are seeking in these situations. Once you clearly understand what kinds

of interactions are taking place at each of your initial customer touch-points, you can then take steps to improve those interactions.

Percentage of Respondents who contacted their utility and had their problem solved in the last 12 months	
Hydro Ottawa	
Yes	67%
No	25%

Base: total respondents with a problem who contacted their utility



Interestingly when customers do have a problem and contact their LDC, and get the problem solved their satisfaction ratings are very similar to the overall level of satisfaction that exists if not slightly higher, however, failing to deal or resolve a customer's problem causes satisfaction levels to drop.

SATISFACTION SCORES – Electricity customers' satisfaction			
Hydro Ottawa	Overall	Problems Solved	Problems Not Solved
Top 2 Boxes: 'very + fairly satisfied'	90%	97%	56%

Base: total respondents with a problem who contacted their utility

We believe a major challenge for most LDCs is about increasing their knowledge about their customers and how they prefer communications to take place. Most CRM systems seem to be inadequate for providing this information about preferences.

# Use of Technology

We live in a world where almost every customer has two lives, one in online and the other is offline. The challenge, for every business, is the reality that those who are connected are connected at an uneven level of technological prowess. There are those who spend a tremendous amount of time on line and there are those who only access the online world when there is an expressed need.



We asked respondents about their attitude towards technology:

The effect of technological changes on people's lives will lead to a future that is ...				
Hydro Ottawa	Overall	< \$30k	\$30k < \$75k	\$75k+
Mostly better	57%	54%	49%	65%
Mostly worse	6%	5%	7%	5%
Neither	29%	23%	37%	24%
Don't know	8%	18%	7%	5%

Base: total respondents

The effect of technological changes on people's lives will lead to a future that is ...				
Hydro Ottawa	Overall	18-34	35-54	55+
Mostly better	57%	74%	60%	52%
Mostly worse	6%	3%	6%	6%
Neither	29%	19%	26%	31%
Don't know	8%	3%	7%	10%

Base: total respondents

In the past, as a company you set the times you were open for business, and that was the time available for customers to assess assistance for dealing with issues and solving problems. Technology has changed all of that, and customers have raised expectations on what is acceptable customer service and what is not. Customers have been given a tremendous amount of online power and many are prepared to use it.

Access the internet for information				
Hydro Ottawa	Overall	< \$30k	\$30k < \$75k	\$75k+
Yes	89%	72%	85%	98%
No	10%	28%	15%	2%
Don't know	1%	0%	0%	0%

Base: total respondents



Access the internet for information				
Hydro Ottawa	Overall	18-34	35-54	55+
Yes	89%	90%	95%	86%
No	10%	10%	4%	13%
Don't know	1%	0%	0%	1%

Base: total respondents

Have a social media account				
Hydro Ottawa	Overall	18-34	35-54	55+
Yes	59%	87%	73%	47%
No	38%	13%	25%	50%
Don't know	1%	0%	1%	2%

Base: total respondents



Use online banking service				
Hydro Ottawa	Overall	< \$30k	\$30k < \$75k	\$75k+
Yes	75%	51%	72%	88%
No	21%	46%	28%	11%
Don't know	1%	0%	0%	0%

Base: total respondents

Use online banking service				
Hydro Ottawa	Overall	18-34	35-54	55+
Yes	75%	97%	87%	67%
No	21%	3%	10%	29%
Don't know	1%	0%	0%	2%

Base: total respondents

Shop online				
Hydro Ottawa	Overall	< \$30k	\$30k < \$75k	\$75k+
Yes	67%	33%	60%	79%
No	31%	67%	40%	21%
Don't know	1%	0%	0%	0%

Base: total respondents

Shop online				
Hydro Ottawa	Overall	18-34	35-54	55+
Yes	67%	81%	83%	57%
No	31%	19%	16%	42%
Don't know	1%	0%	0%	1%

Base: total respondents



Shifting activity to the online world, certainly for many of the basic problems and issues makes sense. While this certainly can help with efficiency, we must be mindful of the reality that CSRs will actually be fielding more calls that are more complex which may require CSRs (and others in the LDC) to develop a more important array of competencies and skills. However, the march towards more online activity and problem resolution should continue at a very quick pace. Respondents were asked how important having online access to the following features was to them:

Importance of online access for the following features:		
Top 2 Boxes: 'very + somewhat important'	Hydro Ottawa	UtilityPULSE Database
Reporting or inquiring about an issue	78%	74%
Researching information about energy conservation	85%	79%
Having a web chat feature on the website	50%	51%
Automated alerts when electricity usage exceeds a prearranged threshold	72%	72%
Review and pay your bill online (through utility's website)	70%	69%
Power outage alerts	82%	81%
Tools and calculators to help you manage your electricity consumption	69%	68%
Comparison of your electricity consumption with your neighbours	53%	51%
Automated alert to predict your upcoming bill	58%	59%
Automated alert to remind you of your bill due date	61%	61%

Base: total respondents / total respondents from the 2017 UtilityPULSE Database



## Accessing Utility's Website

The internet is starting to change the way utilities interact with their customers. The mandate - besides cutting costs - is to provide a richer, more productive experience than telephone communications for everything from setting up a new account to accessing information about a billing statement. The vision is to reinvent customer service, become more responsive and seamless and offer more tailored and focused service.

Research shows the growing importance of customer care and the role that the internet now plays. Canadians are making greater and more diverse use of the internet however, there still exists a gap in the rate of internet use among certain groups of Canadians on the basis of income, education and age.

Take for example the demographic of age; 58% of the 18-34 age group accessed Hydro Ottawa's website vs 39% of those aged 55+. Overall, about half of Hydro Ottawa's customers claimed to have accessed the website.

Within the last year have you accessed your local utility's website?	
Hydro Ottawa	
Yes	49%
No	50%

Base: total respondents



Customers want their questions answered and their problems solved quickly. Phone calls are no longer the only option to reach a support team. Company websites if developed properly allows you to provide online support to your customers without requiring any interaction with a representative from your company. Many of your customers are prepared to find the answers they need themselves by going online and accessing your utility's website.

However, a website can only be effective if it is easy to use. To achieve this, your customer service knowledge base and FAQs need to be easily accessible and up to date. Announcements or notices should be clearly visible. Customers should be able to access your website via desktop, tablet and mobile devices.

If a customer can find information quickly, this can reduce the number of calls or emails your support team receives and lead to a greater customer experience.

Reasons for having accessed the utility's website	
	Hydro Ottawa
Billing problem	45%
Rate information e.g. time-of-use, cost of electricity	15%
Get information about outages e.g. look at outage map	14%
Electricity consumption data	13%
Conservation information / rebates & incentives	5%
Moving/setting up a new account	4%
Regulatory information	2%

<b>Contact information</b>	2%
<b>Forms and applications</b>	1%
<b>Maintenance or repair request</b>	1%

Base: total respondents who claimed to have accessed the website in the past 12 months



Of those who did access Hydro Ottawa's website in the past 12 months, 14% did so to get information about outages, i.e. look at outage map. Interesting that in a previous question when respondents were asked about the importance of certain online features, 82% of total respondents said it was important to have access to online power outage alerts. 60% of respondents claimed that they were likely ('very + somewhat likely') to access the outage map on Hydro Ottawa's website. Customers may not use all the tools and features currently available to them, but they certainly want to have a full range of features at their disposal.

## Outage Map

Customers have increased their expectations as it relates to getting information about outages. What makes the dissemination of information challenging for the LDC is the need to provide the information via multiple media channels and in a timely manner whilst trying to get the power restored. The perception of competency and value of the LDC are certainly linked to the frequency and duration of power outages.

Being seen as effective during an outage situation from the point of view of a customer requires:

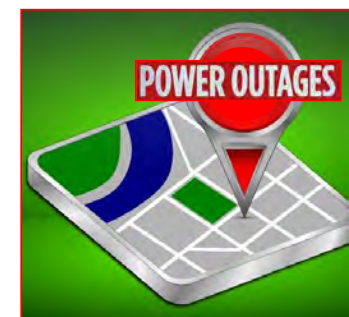
- timely information on outages is provided
- utilities understand that even a short outage in duration is impactful
- in large scale events, utilities should proactively provide tips on how to prepare for extended outages
- being kept informed about what is going on during an outage makes customers feel valued.
- An outage map can provide greater access to the information customers need to help their utility restore their power quickly in the event of an outage. It also provides information to help customers manage their lives and reduce or mitigate any inconvenience.

Customers were asked the likelihood of accessing their utility's website to view an outage map during an outage event.



Likelihood of accessing the utility's outage map on the website	
	Hydro Ottawa
Top 2 Boxes: 'Very likely + somewhat likely'	60%
Very likely	39%
Somewhat likely	21%
Neither likely or unlikely	1%
Somewhat unlikely	11%
Not likely	26%
Don't know	2%

Base: total respondents



**60%** of customers said they would likely access **Hydro Ottawa's website to view an outage map.**

Base: total respondents:  
 Top 2 Boxes: 'Very + somewhat likely'

From a demographic viewpoint, 78% of younger respondents (age: 18-34) vs 47% of older respondents (age:55+) are likely to access the outage map on Hydro Ottawa's website. From a gender viewpoint, 64% of male respondents vs 54% of female respondents are likely to access the outage map on Hydro Ottawa's website. From an income bracket point of view, 73% of income earners under \$30k vs 61% of income earners over \$75k are likely to access the outage map on Hydro Ottawa's website.

When an outage event occurs, customers are often taken off guard. Not sure if it is going to be temporary or lasting several hours – is it widespread throughout the community or localized to a small area - is the utility aware there is a problem – what is estimated time of restoration?

*The types of information customers require during an outage include:*

- *When will their power be restored?*
- *What areas are affected?*
- *How many customers are impacted?*
- *Have work crews been dispatched to the affected area and is the utility working to restore power?*
- *What was the cause of the power outage?*
- *What can customers do to cope during the outage?*

Respondents were asked the importance of being able to verify that their utility knew when an outage event was taking place in the service area.

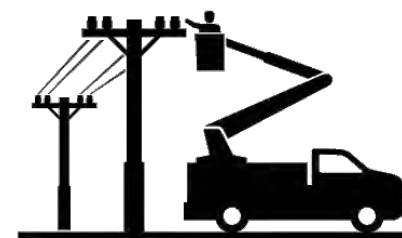
94% of Hydro Ottawa's customers felt it was important ('very + somewhat') to be able to verify that your utility was aware of an outage event. Calling the utility for customer service and instantly getting a recorded message indicating a power outage is in progress and it is being worked on can go a long way in keeping customers calm as well as, accessing the company website and viewing an outage map that indicates the current outage problems that are in progress. Knowing that someone is aware of the problem translates into someone is working on getting the problem resolved – which is what every customer wants.

Importance of being able to verify that the utility is aware of an outage event	
Hydro Ottawa	
Top 2 Boxes: 'Very important + somewhat important'	94%
Very important	74%
Somewhat important	19%
Neither important or unimportant	1%
Somewhat unimportant	2%
Not important	2%
Don't know	1%

Base: total respondents

**94%** of customers felt it was important to be able to verify that **Hydro Ottawa** was aware of an outage event.

Base: total respondents:  
 Top 2 Boxes: 'Very + somewhat important'



When the lights go out, customers want to know what, when, and how service will return. They want accurate and timely information on power restoration. Customers were asked the importance of the utility providing an estimate of time for power restoration on the website.

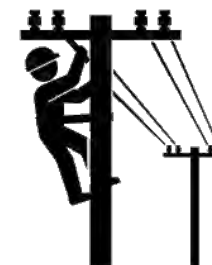
Regardless of demographics (age, income, gender), at least 9 out of 10 people felt it was important to be able to verify that Hydro Ottawa was aware of an outage problem.

Importance of providing an estimate of time for power restoration on website	
Hydro Ottawa	
Top 2 Boxes: 'Very important + somewhat important'	90%
Very important	69%
Somewhat important	22%
Neither important or unimportant	0%
Somewhat unimportant	2%
Not important	5%
Don't know	2%

Base: total respondents

**90%** of customers felt it was important for **Hydro Ottawa** to provide an estimate of time for power restoration on their website.

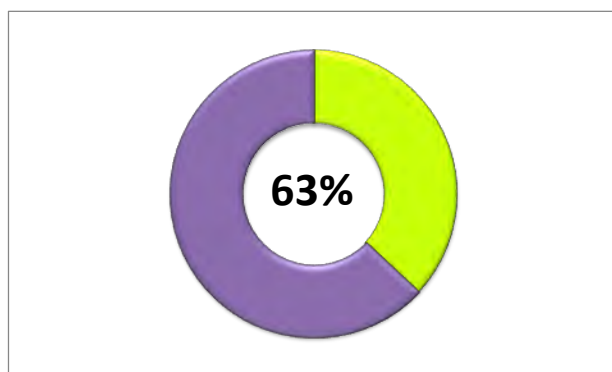
Base: total respondents:  
 Top 2 Boxes: 'Very + somewhat important'



Power outages are going to occur – be they planned or unforeseen. However, customer expectations are changing as speed of information becomes the standard in any service transaction. Realistic and reliable outage reports, estimated time of power restoration and status updates via multiple communication channels are expected. Because the manner of outage communication can have a significant impact on customer satisfaction, utilities must ensure they are continuously improving their processes for outage communications.

## Confidence in the Industry

Energy sector participants, especially LDCs, are very aware of the importance of developing, maintaining and enhance customer trust in the industry. Not an easy task when we're in an environment of significant change. The industry is also going through a massive change driven by technology. In addition, customer expectations continue to grow.



**'Customers are well served by the electricity system in Ontario' – do you agree?** Base: total respondents

(‘strongly + somewhat’) customers are well served by the electricity system in Ontario  
 agree nor disagree  
 disagree (‘strongly + somewhat’) they are well served  
 did not answer or did not know

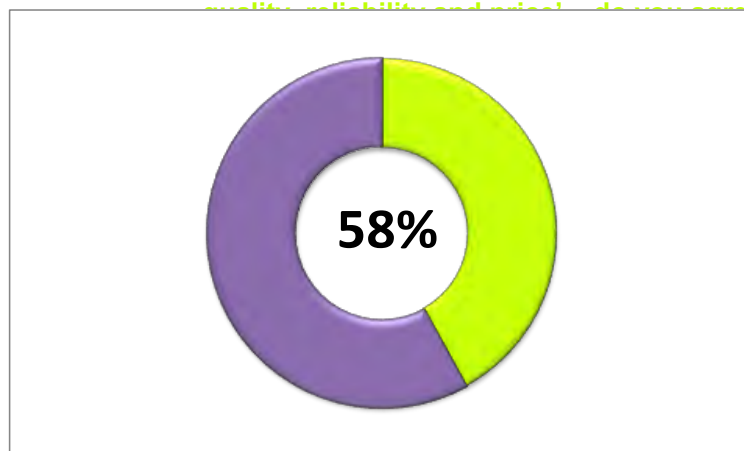
served by the electricity system in Ontario' – do you agree?				
Hydro Ottawa	Overall	< \$30k	\$30k < \$75k	\$75k+
<b>Top 2 Boxes: 'Strongly + Somewhat Agree'</b>	63%	72%	62%	61%

Base: total respondents

'Customers are well served by the electricity system in Ontario' – do you agree?			
	Hydro Ottawa	Ontario	UtilityPULSE Database
<b>Top 2 Boxes: 'Strongly + Somewhat Agree'</b>	63%	58%	60%

Base: total respondents / total respondents from the 2017 UtilityPULSE Database

**'Customers are confident in the electricity industry's ability to meet their future expectations regarding quality, reliability and price' – do you agree?** Base: total respondents



(strongly + somewhat') customers are confident the electricity industry has the ability to meet future expectations regarding quality, reliability and price. (disagree nor disagree) customers do not agree or disagree with the statement. (strongly + somewhat') the industry can deliver on future expectations. (disagree nor disagree) the industry cannot deliver on future expectations. (strongly + somewhat') the industry can deliver on future expectations. (disagree nor disagree) the industry cannot deliver on future expectations. (strongly + somewhat') the industry can deliver on future expectations. (disagree nor disagree) the industry cannot deliver on future expectations.

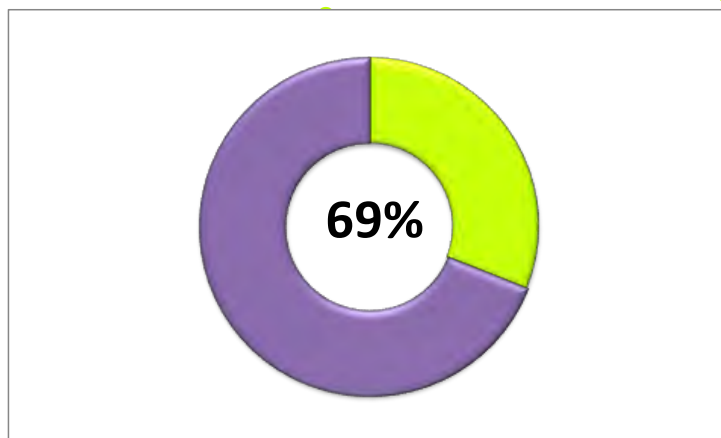
'Customers are confident in the electricity industry's ability to meet future expectations regarding quality, reliability and price' – do you agree?				
Hydro Ottawa	Overall	< \$30k	\$30k < \$75k	\$75k+
Top 2 Boxes: 'Strongly + Somewhat Agree'	58%	71%	58%	56%

Base: total respondents

'Customers are confident in the electricity industry's ability to meet future expectations regarding quality, reliability and price' – do you agree?			
	Hydro Ottawa	Ontario	UtilityPULSE Database
Top 2 Boxes: 'Strongly + Somewhat Agree'	58%	48%	54%

Base: total respondents / total respondents from the 2017 UtilityPULSE Database

**'Customers are confident in the electricity industry's ability to keep up with technological changes' – do you agree?**



(strongly + somewhat') customers are confident the electricity industry will keep up with technological changes  
 (neither agree nor disagree)  
 (neither agree nor disagree) ('strongly + somewhat') the industry will keep up with changing technology  
 (neither agree nor disagree) under an opinion or did not know

Industry's ability to keep up with technological change' – do you agree?				
Hydro Ottawa	Overall	< \$30k	\$30k < \$75k	\$75k+
Top 2 Boxes: 'Strongly + Somewhat Agree'	69%	83%	72%	65%

Base: total respondents

'Customers are confident in the electricity industry's ability to keep up with technological change' – do you agree?			
	Hydro Ottawa	Ontario	UtilityPULSE Database
Top 2 Boxes: 'Strongly + Somewhat Agree'	69%	59%	67%

Base: total respondents / total respondents from the 2017 UtilityPULSE Database

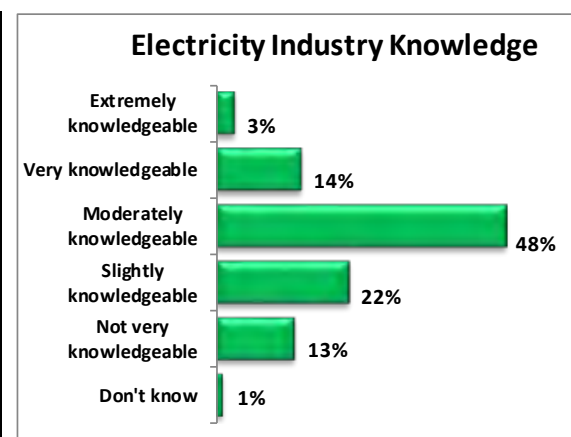
When customers have a high level of confidence, it is much easier for LDCs to forge a new kind of relationship with its customers which, in turn, helps all parties successfully deal with the issues and opportunities of the new energy world.

# Electric Utility Industry Knowledge

We've heard from many professionals and others who work in the industry who have said '*If customers knew how the industry worked they would be more understanding and appreciative of what it costs to reliably deliver electricity*'. For two years we've been asking a random group of customers to self-assess their level of knowledge about the electric utility industry. The data is clear, those who say they are 'extremely + very knowledgeable' provide their LDC with lower scores than those who say they are 'slightly or not very knowledgeable'.

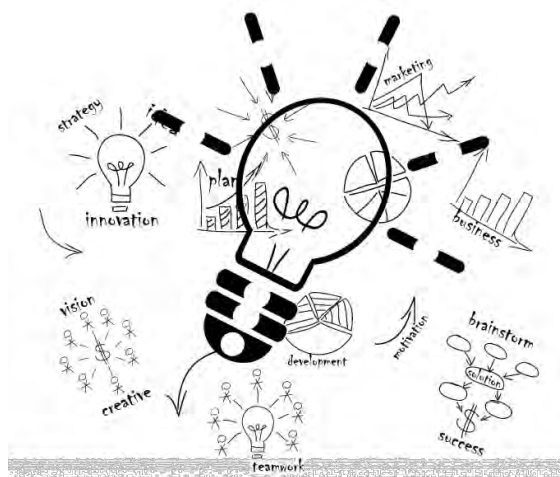
Knowledge level about the electric utility industry		
	Hydro Ottawa	UtilityPULSE Database
Extremely knowledgeable	3%	4%
Very knowledgeable	14%	13%
Moderately knowledgeable	48%	48%
Slightly knowledgeable	22%	21%
Not very knowledgeable	13%	12%
Don't know	1%	1%

Base: total respondents / total respondents from the 2017 UtilityPULSE Database



16% of respondents for Hydro Ottawa described themselves as Extremely or Very knowledgeable about the electric utility industry. 48% claim they are moderately knowledgeable.

Approximately 1 in 5 (18%) survey participants in the UtilityPULSE database describe themselves as Extremely knowledgeable or Very knowledgeable. 54% of this knowledgeable group said they agree 'strongly + somewhat' customers were well served by the electricity system.



Approximately 1 in 3 survey respondents describe themselves in the bottom 2 categories of knowledge, and 63% of this group said they agree 'strongly + somewhat' customers are well served.

Being knowledgeable is not necessarily a path to better appreciation for the LDC – or other stakeholders in the energy sector. However, helping customers be empowered to act by giving them the knowledge they need to access information, manage consumption, and deal with issues should be the primary focus of educating and engaging customers. Knowing how and where to go to get a problem removes the feeling of powerlessness which many customers have when there is a problem. The focus should be less on 'how to appreciate the industry' but more on 'how customers can access information & tools to make life easier'.


# Customer Experience Performance rating (CEPr)

The CEPr score is an effectiveness rating and is affected by many dimensions of service. Every touch point with customers on the phone, website or in-person influences what customers think and feel about the organization. While an excellent transaction today creates a positive experience today, the perception created is future transactions will be excellent too. Of course, a negative transaction creates the perception future transactions will be negative.

When the customer experience is strong, the opportunity to build loyalty is great. When the experience is a negative one, customers often conclude the organization doesn't care. When a customer believes the organization doesn't care, outrage and anger are a very real possibility.

Understanding your customer's expectations for service is the first step in providing an amazing customer experience. It is essential customer care call centers develop a comprehensive understanding of what

*At the heart of the CEPr are 4 central questions:*

- 
1. Are interactions with the organization professional and productive?
  2. Is the organization 'easy to deal with'?
  3. Does the organization effectively meet your needs?
  4. Does the organization provide high quality services?

customers expect from them, whether or not their needs are being met and how they can improve their service to meet their expectations.

Some of the factors which contribute to the overall customer experience:

- Delivering accessible and consistent customer service (multi-channel)
- Understanding customer expectations
- Maintaining timely resolution timelines
- Providing effective communication(s) according to customer needs
- Demonstrating responsiveness
- Speeding up problem resolution
- Conducting problem analysis to prevent recurring issues
- Easy to do business with
- Seeking customer feedback and following through on recommendations



Customer Experience Performance rating (CEPr)			
	Hydro Ottawa	National	Ontario
<b>CEPr: all respondents</b>	84%	83%	81%

Base: total respondents

The CEPr for Hydro Ottawa is 84%. This rating would suggest that a very large majority of customers have a belief they will have a good to excellent experience dealing with Hydro Ottawa professionals.

# Customer Centric Engagement Index (CCEI)

Customer engagement and customer satisfaction are very different measures. We believe generating high scores in customer engagement is actually more difficult than customer satisfaction. For example, a customer can be highly satisfied when the LDC reliability delivers electricity, bills the customer properly and quickly deals with outages. Essentially when the LDC does what it promises to do then satisfaction follows.

Customer engagement is about connecting with customers in ways to demonstrate the LDC has heard the customer, understands the customer's needs, wants, desires and issues. When the LDC does demonstrate hearing and understanding, the result is higher levels of emotional connection i.e., feelings that the people at the LDC actually care, respect and value their customers or are prepared to go-out-of-their-way (if necessary) to help.

Customer engagement is often thought of as a series of activities involving the customer such as conducting a survey, holding town hall type meetings, focus groups, etc. One could call these types of activities as the behaviour side of engagement. However, there is an emotional side to engagement.



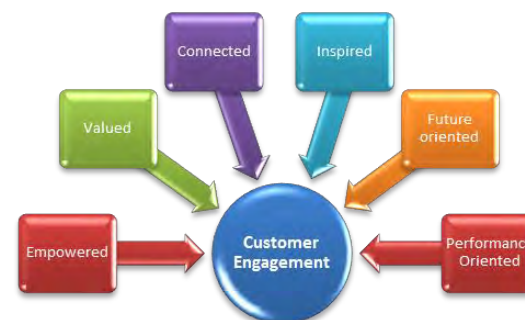
This survey also provides you with an emotional look at engagement. The UtilityPULSE CCEI is a gauge of the amount of goodwill which has been generated. High numbers in CCEI suggest there is a high level of goodwill amongst your customers – this is important for two reasons. First when something goes awry for the utility, goodwill helps the utility to be resilient. Second, goodwill encourages active participation in requests to participate in engagement activities or program offerings from the utility.

The CCEI is a metric designed to get a more in-depth look at the attachment a customer has with your LDC and its brand. High levels of customer engagement (emotional) correlate strongly to high levels of Secure and Favourable customer numbers.

***Engagement is how customers think, feel and act towards the organization.*** As such, ensuring customers respond in a positive way requires they are rationally satisfied with the services provided

AND emotionally connected to your LDC and its brand. The more frequently and consistently an organization's products and services can connect with a customer, especially on an emotional level, the stronger and deeper the customer becomes engaged with the organization.

UtilityPULSE has identified the six key dimensions of what defines customer engagement. They are: empowered, valued, connected, inspired, future oriented and performance oriented. Customer centric engagement is a measure of "goodwill" towards the utility. The UP database does show Secure customers believe they are more highly engaged with their LDC than customers who are At Risk.



Utility Customer Centric Engagement Index (CCEI)			
	Hydro Ottawa	National	Ontario
CCEI	79%	78%	76%

Base: total respondents

Customers who are less engaged, as measured by the CCEI are more likely to let costs and/or price impact their perceptions of their LDC. Customers who are highly engaged are more inclined to look past costs and money issues and use a rational approach to make values-based decisions. Highly engaged customers have a stronger emotional connection to your utility. It's this emotional connection which will drive commitment, loyalty and advocacy.

Using the measures of Satisfaction and Engagement the LDCs relationship with its customers would fall into one of four quadrants: Q1- low satisfaction/low engagement; Q2- high satisfaction/low engagement; Q3- low satisfaction/high engagement and Q4- high satisfaction/high engagement. Most LDCs would agree having customers fall into the Q1 quadrant isn't good and having customers fall into Q4 is ideal.

When LDCs have candid conversations with customers and employees about their joint and different needs & perspectives the better the LDC can be for creating an excellent place to do business with and to work.

# UtilityPULSE Report Card®

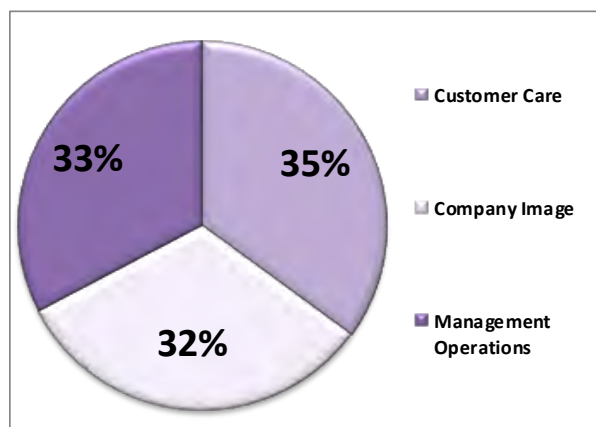
Simul's UtilityPULSE Report Card® is based on tens of thousands of customer interviews gathered over eighteen years. The purpose of the UtilityPULSE Report Card® is to provide electric utilities with a snapshot of performance – on the things customers deem to be important. Research has identified over 20 attributes, sorted into six topic categories (we call these drivers), which customers have used to describe their utility when they have been satisfied or very satisfied with their utility. These attributes form the nucleus, or base, from which “scores” are assigned. Customer satisfaction and loyalty also play a major role in the calculations.

There are two main dimensions of the UtilityPULSE Report Card® the first is customer psyche and the other is customer perceptions about how the utility executes its business.

## **The Psyche of Customers**

Every utility has virtually the same responsibility – provide safe and reliable electricity – yet not all customers are the same. The following chart shows the weight or significance of each category to the customer when forming their overall impression of the utility. Three major themes, each with two major categories make up the UtilityPULSE Report Card®. In effect the Report Card provides feedback about your customers' perception on the importance of each category and driver – as it relates to the benchmark.

## UtilityPULSE Report Card® for Hydro Ottawa



Base: total respondents

The UtilityPULSE Report Card® also provides customer perceptions about how your utility executes or performs its responsibilities. This is different, very different, from what a customer might say about a major concern or worry they have about electricity. As our survey has shown since its inception the primary suggestion for improvement is “reduce prices”, which is also a major concern which your customers have about municipal taxes, gas for the vehicle, and other utilities.

Readers of this report should note that the categories and drivers are interdependent. Which means, for example, failure to provide high levels of power quality and reliability will have a negative impact on customer perceptions as it relates to customer service. Customer care, when it doesn't meet customer expectations has a negative impact on Company Image, etc.



*The UtilityPULSE Report Card is a zero sum game. As customer interest/concern in one area goes up, the others go down.*

Defining the categories and major drivers:

**Category: Customer Care**

**Drivers: Price and Value; Customer Service**

Just because everyone likes good customer care, that in and by itself, is not a reason to provide it – though it may be important to do so. In highly competitive industries good customer service may be a differentiating factor. The case for electric utilities is simple, high levels of customer care result in less work (hence cost) of responding to customer inquiries and higher levels of acceptance of the utility's actions.

***Price and Value:***

Customers have to purchase electricity because life and lifestyle depend on it. This driver measures customer perceptions as to whether the total costs of electricity represent good value and whether the utility is seen as working in the best interests of its customers as it relates to keeping costs affordable.

***Customer Service:***

Customers do have needs and every now and again have to interface with their utility. How the utility handles various customers' requests and concerns is what this driver is all about. Promptly answering inquiries, providing sound information, keeping customers informed and doing so in a professional manner are the major components of this driver.

## **Category: Company Image**

### **Drivers: Company Leadership; Corporate Stewardship**

Utilities have an image even if they do not undertake any activities to try to build it. A company's image is both a simple and complex concept. It is simple because companies do create images which are easily described and recognized by their target customers. It is complex because it takes many discrete elements to create an image which includes, but is not limited to: advertising, marketing communications, publicity, service offering and pricing.

An electric utility trying to manage its image has one more challenge to deal with, and that is the electric industry itself. There are so many players, residential customers (in particular) don't know who does what or who is responsible for what. So, when there are political or regulatory announcements, the local utility is often swept up into the collective reaction of the population.

#### ***Company Leadership***

This driver is comprised of customer perceptions as it relates to industry leadership, keeping promises and being a respected company in the community.

#### ***Corporate Stewardship***

Customers rely on electricity and want to know their utility is both a trusted and credible organization which is well managed, accountable, socially responsible and has its financial house in order.

**Category: Management Operations**

**Drivers: Operational Effectiveness; Power Quality and Reliability**

Electrical power is the primary product which utilities provide their customers and, they have very high expectations the power will be there when they need it. Customers have little tolerance for outages. The reality is, every utility must get this part right...no excuses. It is the utility's core business. This category and its drivers are clearly the most important for fulfilling the rational needs of a utility's customers.

***Operational Effectiveness***

This driver measures customers' perceptions as they relate to ensuring their utility runs smoothly. Attributes such as: accurate billing and meter reading, completing service work in a professional and timely manner and maintaining equipment in good repair are deemed as important to customers.

***Power Quality and Reliability***

Power outages are a fact of life – and, customers know it. They expect their utility to provide consistent, reliable electricity, handle outages and restore power quickly and make using electricity safely an important priority.

Hydro Ottawa's UtilityPULSE Report Card®				
Performance				
	CATEGORY	Hydro Ottawa	National	Ontario
1	<b>Customer Care</b>	<b>B+</b>	<b>B</b>	<b>C+</b>
	Price and Value	B	B	C
	Customer Service	B+	B+	B
2	<b>Company Image</b>	<b>B+</b>	<b>B+</b>	<b>B</b>
	Company Leadership	B+	B+	B
	Corporate Stewardship	B+	B+	B
3	<b>Management Operations</b>	<b>A</b>	<b>A</b>	<b>A</b>
	Operational Effectiveness	A	A	A
	Power Quality and Reliability	A	A	A
<b>OVERALL</b>		<b>A</b>	<b>B+</b>	<b>B</b>

Base: total respondents

Ontario LDCs get a D+ rating for 'provides good value' and 'operates a cost effective electricity system' and a D rating for 'cost of electricity is reasonable when compared to other utilities'.

As the UtilityPULSE Report Card® shows, the total customer experience with an electric utility is defined as more than “keeping the lights on”. Customers deal with your utility every day for a variety of reasons, most likely because they need someone to help them solve a problem, answer a question or take their order for service. All your employees, from customer service representatives to linemen, leave a lasting impression on the customers they interact with. In effect there are many moments of truth. Moments of truth are every customer touch point a utility has with their customers. Therefore, managing these moments of truth creates higher levels of Secure customers while reducing the number of At Risk customers which exist.

It's the small things done consistently that matter: Things like greeting every customer, whether on the phone or in person, in a friendly and helpful manner. Things like listening to the customer's needs, providing solutions to their problems and showing appreciation to the customer for their business.

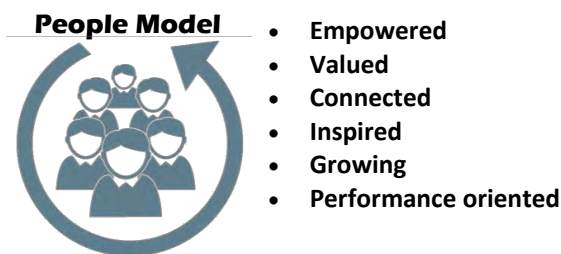
Utilities now recognize customer communications as a valuable aspect of their business. The better a utility communicates with customers in a manner which speaks to them, the more satisfied they are with their overall service. “Sending out information” is not the same as having a “conversation” with a customer. We believe it is increasingly important to channel your communications to the various customer segments which exist.

Obviously, employees – in every area – play a critical role in customer service success. Consequently, how they feel about their job responsibilities and role in the company will be communicated indirectly through the

level of service which they actually provide customers with whom they interact. The reality is engaged employees are the key to excellent customer care.

Our survey work with employees shows there are many elements of an organizational culture to support the people model needed to achieve high levels of engagement.

Our research has identified 6 main drivers which promote and support people giving their best:



There are 12 key processes from “attracting employees” to “saying goodbye to employees” are part of your people model to get the best performance from every employee.

We believe taking the time to understand the difference between employee satisfaction and organizational culture is worthwhile from a resourcing perspective and from a people development perspective. Every organization has a culture – we believe it is a leadership imperative to install and maintain a culture which ensures you attain the achievements and successes of your utility’s many investments in people, technology and equipment. It is true, organization culture affects everyone, and everyone affects organization culture.

# The Loyalty Factor

If a customer is satisfied, it doesn't necessarily mean he or she is loyal. Satisfaction is about fulfilling promises/expectations; loyalty goes way beyond that by creating exceptional experiences and long-lasting relationships. There is a reason why marketing campaigns strive to build brand loyalty, not brand satisfaction. Measuring customer loyalty in an industry where many customers don't have a choice of providers doesn't make sense. Or does it?

The answer depends on how you define "customer loyalty."

Private industry often equates customer loyalty with basic customer retention. If a customer continues to do business with a company, the customer is, by definition, considered to be loyal. If this definition were applied to many companies in the utility industry, all customers would automatically be considered loyal. As such, measuring customer loyalty would appear to be unnecessary.

Natural monopolies (like LDCs) are not really different in what they should measure except that trying to determine which customers are "loyal" or "at risk" is not about their future behaviour but more about their "attitudinal" loyalty (are they advocates?).



Whether a customer is loyal and/or satisfied will be determined by an alignment of the emotion, experience and expectation of both the customer and the LDC.

Perhaps a better or more relevant way for utilities to approach the definition of customer loyalty is to further expand how they think about loyalty. Consider the following definition: Customer loyalty is an emotional disposition on the part of the customer which affects the way(s) in which the customer (consistently) interacts, responds or reacts towards the company – its products & services and its brand.

So, what does it mean to respond favourably to a company? At a basic level, this can mean choosing to remain a customer. As previously mentioned however, this is essentially a non-issue for many utility companies. It then becomes necessary to think beyond just customer retention. One needs to consider other ways in which customers can respond favourably toward a company.

Other favourable responses or behaviours can be classified into one of three categories that reflect the concept of customer loyalty:

- Participation
- Compliance or Influence
- Advocacy



**Some Tips to build loyalty:**

- ✓ Solve problems quickly
- ✓ Treat customers right
- ✓ Listen to complaints
- ✓ Be personal; create a great experience
- ✓ Friendly customer service
- ✓ Accessible information or help
- ✓ Good reputation
- ✓ Demonstrate you care

Specific examples of potential participatory behaviour in the electric utility industry include:

- Signing up for programs which help the customer reduce or manage their energy consumption
- Using the utility as a consultant when selecting energy products and services from a third party
- Participating in pilot programs or research studies.

Specific examples of potential compliance or influence behaviours utility customers might exhibit include:

- Seeking the utility's advice or expertise on an energy-related issue
- Voluntarily cutting back on electricity usage if the utility advised the customer to do so
- Accepting the utility's energy advice or referrals to energy contractors or equipment
- Being influenced by the utility's opinion regarding energy- management advice, equipment, or technologies
- Providing personal information which enables the utility to better serve the customer
- Paying bills online.

Creating customer advocates can be especially important for a company in a regulated industry. In the absence of customer advocates, or worse, in a situation where customers speak unfavourably about a company or actively work to support issues that are counter to those the company supports, companies can suffer a variety of negative consequences like increased business costs, lawsuits, fines and construction delays. For an electric utility, specific examples of potential advocacy behaviour include:

- Supporting the utility's positions or actions on energy-related public issues, including the environment
- Supporting the utility's position on the location and construction of facilities
- Providing testimonials about positive experiences with the utility.

In sum, loyal behaviour in the utility industry may not be as evident as it is in a more competitive environment. Measuring customer loyalty in a generally non-competitive industry requires one to think about loyalty in non-

traditional ways. Customer loyalty is an intangible asset which has positive consequences or outcomes associated with it no matter what the industry. Properly measuring loyalty among utility customers requires thoughtful probing to thoroughly identify the range of participation, compliance, and advocacy behaviours that will ultimately benefit the company in meaningful ways, and foster happier and more loyal customers.

The UtilityPULSE Customer Loyalty Performance Score segments customers into four groups: **Secure** – the



most loyal - **Still Favorable, Indifferent, and At risk.**

**Secure** customers are “very satisfied” overall with their local electricity utility. They have a very high emotional connection with their utility and definitely would recommend their local utility.

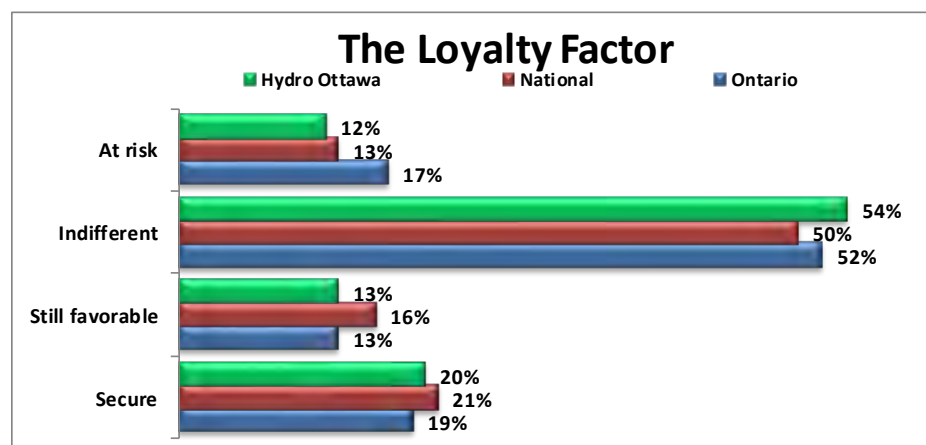
**Still favorable** customers are “very satisfied” overall, “definitely” or “probably” would recommend their local utility and not switch if they could.

**Indifferent** customers are less satisfied overall than secure and still-favorable customers and less inclined to recommend their local utility or say they would not switch.

**At risk** customers, who are “very dissatisfied” with their electricity utility, “definitely” would switch and “definitely” would not recommend it.

Customer Loyalty Groups				
	Secure	Favorable	Indifferent	At Risk
Hydro Ottawa				
2017	20%	13%	54%	12%
2016	15%	10%	56%	19%
2015	15%	8%	63%	14%
2014	15%	8%	61%	16%
2013	29%	15%	47%	8%

Base: total respondents / (-) not a participant of the survey year

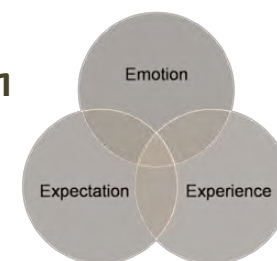


Base: total respondents

Customer Loyalty Groups				
	Secure	Favorable	Indifferent	At Risk
Ontario				
2017	19%	13%	52%	17%
2016	17%	13%	54%	16%
2015	17%	11%	61%	11%
2014	17%	10%	57%	17%
2013	24%	15%	51%	11%
National				
2017	21%	16%	50%	13%
2016	23%	12%	54%	11%
2015	18%	11%	61%	10%
2014	20%	11%	56%	13%
2013	26%	17%	47%	10%

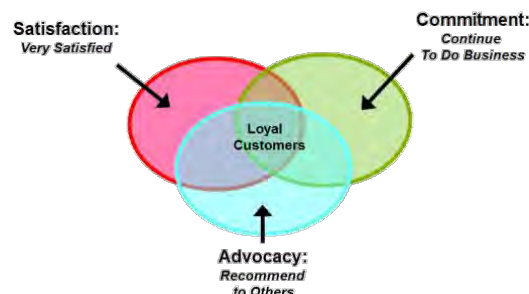
Base: total respondents

“Whether a customer is loyal and/or satisfied will be determined by an alignment of the emotion, experience and expectation of both the customer and the LDC.”



# Customer commitment

## Customer Loyalty Model



Customer loyalty is a term which can be used to embrace a range of customer attitudes and behaviours. One of the metrics used to gauge loyalty is the measure of **retention**, or intention to buy again; this loyalty attitude is termed **commitment**. For LDCs commitment is not about behaviour it is about attitude i.e., do they want to remain your customer.

Customer commitment is a very important driver of customer loyalty in the electricity service industry. In a similar way to trust, commitment is considered an important ingredient in successful relationships. In simpler terms, commitment refers to the motivation to continue to do business with and maintain a relationship with a business partner i.e. the local utility.

For electric utilities, this measurement is about identifying the number of customers who feel they “want to” vs “have to” do business with you. Potential benefits of commitment may include word of mouth communications - an important aspect of attitudinal loyalty. Committed customers have been known to demonstrate a number of beneficial behaviours, for example committed customers tend to:

- Come to you. One of the key benefits of establishing a good level of customer loyalty is customers will come to you when they need a product or service

- Validate information received from 3<sup>rd</sup> parties with information and expertise that you have
- Try new products/initiatives
- Perhaps they will even trust you when recommendations are made
- Be more price tolerant
- More receptivity of utility viewpoints on various issues
- More tolerance of errors or issues which inevitably take a swipe at the utility
- Stronger levels of perception regarding how the utility is managed.

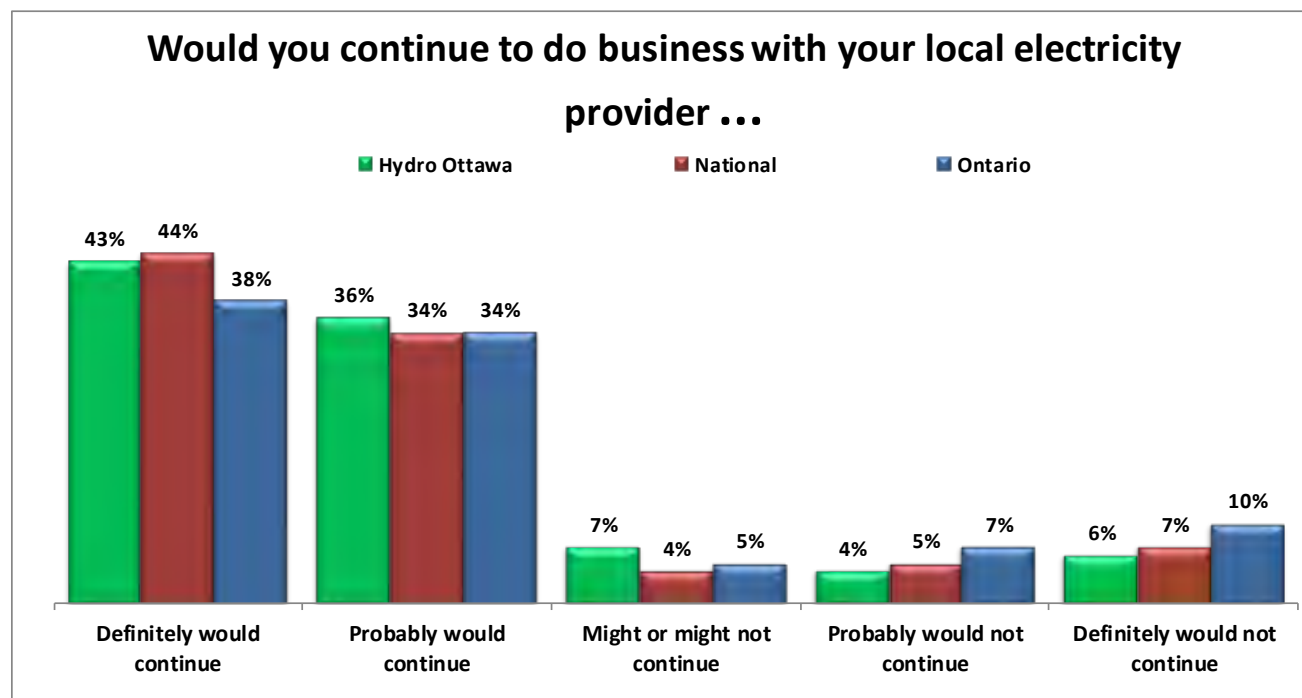
Though customers can not physically leave you, they can emotionally leave you and when they do, it becomes an extreme challenge to garner their participation or support for utility initiatives.

Electricity customers' loyalty – ... Is a company that you would like to continue to do business with			
	Hydro Ottawa	National	Ontario
<b>Top 2 Boxes: 'Definitely + Probably' would continue</b>	79%	78%	73%
<b>Definitely would continue</b>	43%	44%	38%
<b>Probably would continue</b>	36%	34%	34%
<b>Might or might not continue</b>	7%	4%	5%
<b>Probably would not continue</b>	4%	5%	7%
<b>Definitely would not continue</b>	6%	7%	10%

Base: total respondents

Electricity customers' loyalty – ... Is a company that you would like to continue to do business with					
Hydro Ottawa	2017	2016	2015	2014	2013
<b>Top 2 boxes: 'Definitely + Probably' would continue</b>	79%	70%	73%	68%	80%

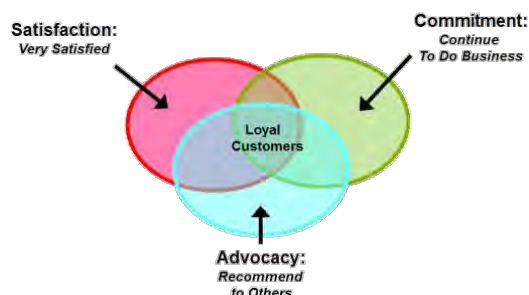
Base: total respondents / (-) not a participant of the survey year



Base: total respondents

## Word of mouth

### Customer Loyalty Model

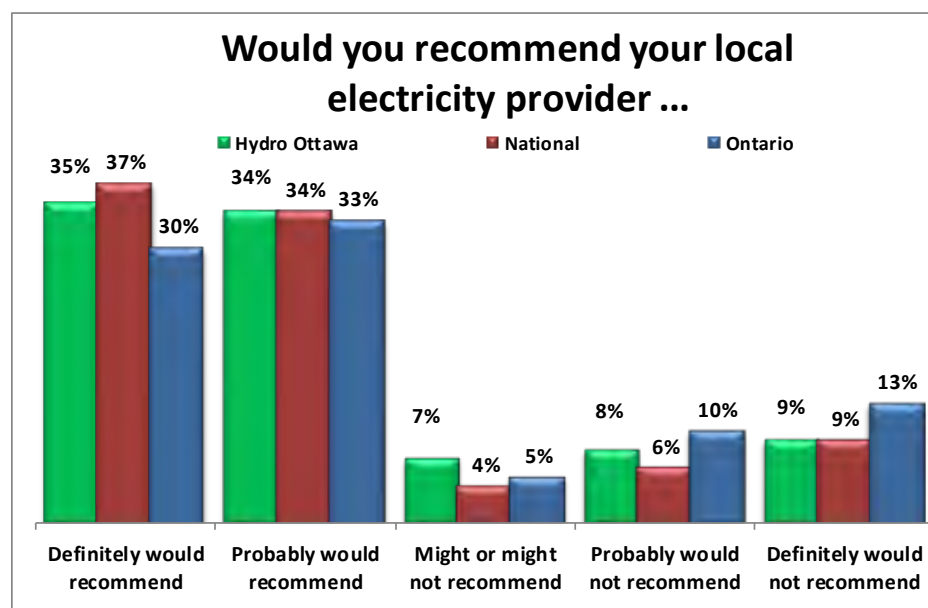


Advocacy is one of the metrics measured in determining customer loyalty. Essentially, companies believe a loyal customer is one who is spreading the value of the business to others, leading new people to the business and helping the company grow. Customer referrals, endorsements and spreading the word are extremely important forms of customer behaviour. For LDCs this is about generating positive referants about the LDC as a relevant and valuable enterprise.



When customers are loyal to a company, product or service, they not only are more likely to purchase from the company again, but they are more likely to recommend it to others – to openly share their positive feelings and experiences with others. In today's world, thanks to the Internet, they can tell and influence millions of people. The same holds true, if not more, when customers are disloyal. Disgruntled customers could share their negative experiences with an ever-widening audience, jeopardizing a company's reputation and resulting in fewer engaged customers and/or customers who are Favourable or Secure. Secure customers, typically are advocates and they are deeply connected and brand-involved.

Would you tell me if you agree or disagree with the following statement? Hydro Ottawa is a company that you would recommend to a friend or colleague ...



Base: total respondents

Word of mouth communication is a very powerful form of communication and influence. When customers are speaking to other customers (or their peers) it is more credible, goes through less perceptual filters and can enhance the view of services or products better than marketing communication.

*There are two forms of word of mouth which utilities need to understand. The first is Experience-based word of mouth which is the most common and most powerful form. It results from a customer's direct experience with the utility or the re-statement of a direct experience from a trusted source.*

*The second is Relay-based word of mouth. This is when customers pass along important messages to others based on what they have learned through the more traditional forms of communications. For example, if the utility was communicating an offer for "free LED lights" chances are high the offer will be "relayed" to others through word of mouth.*

*For an electric utility, specific examples of potential positive advocacy behaviour include:*

- *Recommending other customers specifically locate in the geographic area which is serviced by that utility*
- *Supporting the utility's positions or actions on energy-related public issues, including the environment*
- *Supporting the utility's position on the location and construction of facilities*
- *Providing testimonials about positive experiences with the utility*

Electricity customers' loyalty – ... is a company that you would recommend to a friend or colleague			
	Hydro Ottawa	National	Ontario
<b>Top 2 boxes: 'Definitely + Probably' would recommend</b>	68%	71%	63%
<b>Definitely would recommend</b>	35%	37%	30%
<b>Probably would recommend</b>	34%	34%	33%
<b>Might or might not recommend</b>	7%	4%	5%
<b>Probably would not recommend</b>	8%	6%	10%
<b>Definitely would not recommend</b>	9%	9%	13%

Base: total respondents

Electricity customers' loyalty – is a company that you would recommend to a friend or colleague					
Hydro Ottawa	2017	2016	2015	2014	2013
<b>Top 2 boxes: 'Definitely + Probably' would recommend</b>	68%	61%	68%	62%	77%

Base: total respondents / (-) not a participant of the survey year

Our survey research as well as theory backs up the fact that if your customers are willing to endorse you and put their reputation on the line to recommend you, they also trust you and are satisfied with the service you are providing.

## Corporate image

Although reputation is an intangible concept, research universally shows a good reputation encourages higher levels of emotional connection with their utility. A corporate image is the sum of the impressions stakeholders like your customers, suppliers, employees and the public at large hold about your company. Corporate image is comprised of a number of interrelated variables: corporate identity, corporate communication, corporate image, and corporate reputation.

Corporate identity is the reality of the corporation. It is the unique individual personality of the company which differentiates it from other companies in the electricity industry. It is also called a company's "brand equity." Brand equity refers to a value premium the Hydro Ottawa name and symbols generates from its electricity distribution business with a recognizable name, when compared to a generic equivalent of "electric utility" or "local distribution company". The generic corporate image is automatically granted, and one could say is the baseline, the Hydro Ottawa name could be a plus or a minus to the baseline.

But is there really any benefit to building brand equity (the corporate image) with customers who, frankly, cannot leave?

The answer is yes when its image clearly differentiates the LDC from other players in the electricity energy industry. That is, the LDC is not seen as a government department, or a generator of electricity, or a regulatory – it is seen for what it is. Without being seen as a different entity in the energy industry, then the LDC is more affected by industry events.

A strong reputation makes it easier to capture the attention of more customers – more often. When the LDC has an idea, for example something related to conservation or a new technology and wants to work with its customers – more customers would be prepared to work with the LDC. It is much easier to introduce new ideas. Also, we shouldn't lose sight of the fact that a strong corporate image has an impact on employees as well. Below are some of the attributes measured in the annual UtilityPULSE survey which are strongly linked to a utility's image.

Marketing – Communications			
	Hydro Ottawa	National	Ontario
<b>Topics which require more pro-active communication</b>			
<b>Cost of electricity is reasonable when compared to other utilities</b>	58%	62%	52%
<b>Provides good value for money</b>	66%	62%	57%
<b>Operates a cost effective electricity distribution system</b>	65%	71%	60%
<b>Provides information to help customers reduce their costs</b>	79%	78%	74%
<b>Adapts well to changes in customer expectations</b>	71%	71%	69%
<b>Topics that your utility scores very well on</b>			
<b>Delivers on its service commitments</b>	87%	84%	84%
<b>Electricity safety is a top priority</b>	89%	87%	87%
<b>Quickly handles outages and restores power</b>	88%	87%	85%
<b>Standard of reliability delivering electricity that meets expectations</b>	91%	88%	86%
<b>Provides consistent, reliable energy</b>	93%	90%	89%

Base: total respondents with an opinion

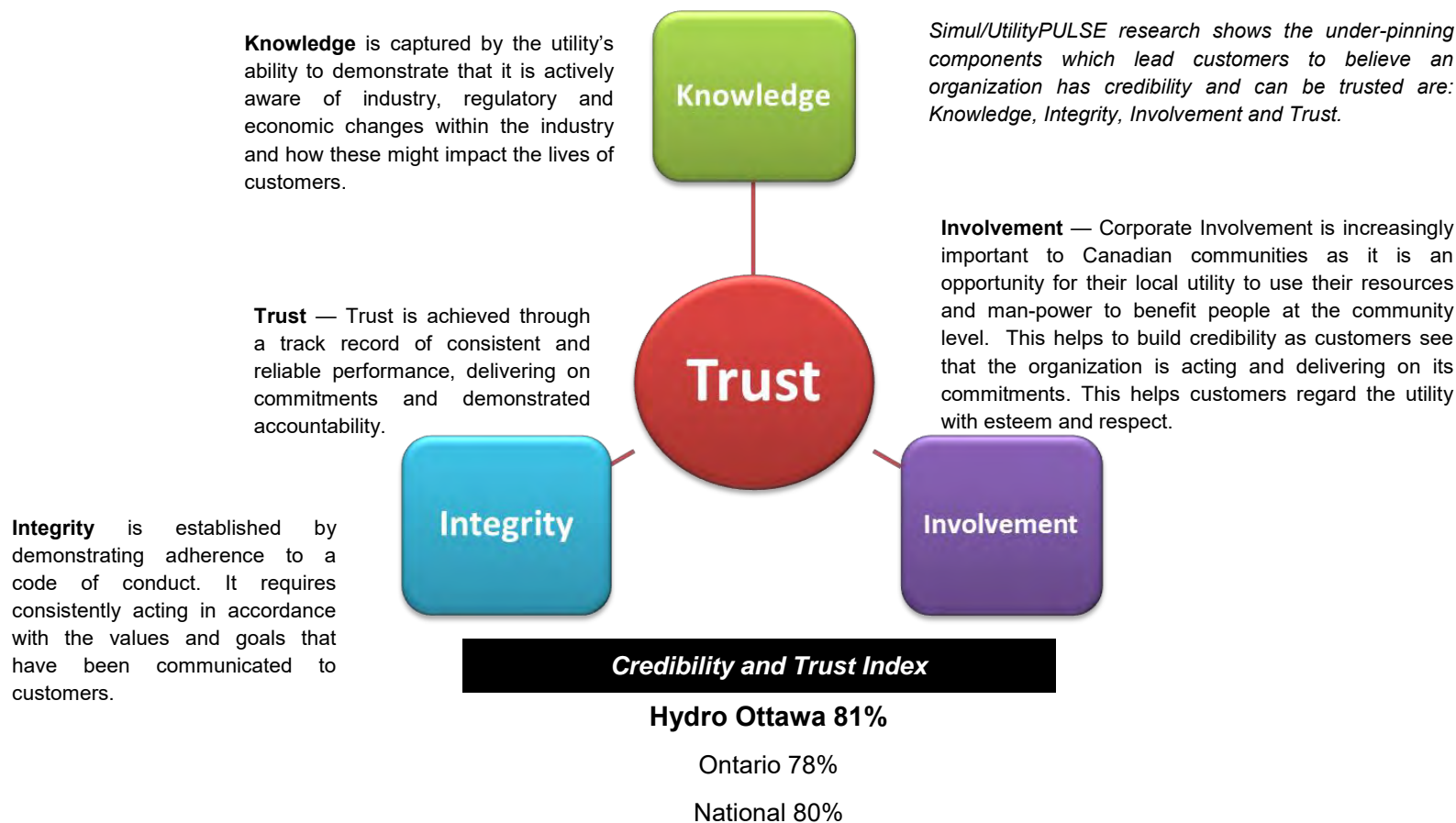
# Corporate Credibility & Trust

Credibility is a judgment, customers and others make about whether a person or an organization has the competencies and experience to do what they promise to do. Trust, is a feeling or belief, that a person or an organization they are dealing with is doing so in an honest, open manner with no hidden agendas. How customers and other stakeholders respond to your communications is affected by the person's perception. Without credibility, everything you say to customers, employees and others can be questioned.

Of paramount importance to maintaining credibility & trust is effectively managing expectations—customers, employees and other stakeholders that matter to the business of the LDC. A key to this is open and honest communications. An important benefit of having a high degree of credibility & trust is, authentic collaboration can become a reality. Credibility & trust, is a powerful currency for building relationships. Credibility & trust are outcomes based on what the LDC actually does, not what it might be doing.

Attributes strongly linked to Credibility & Trust			
	Hydro Ottawa	National	Ontario
Overall the utility provides excellent quality services	84%	85%	83%
Keeps its promises to customers and the community	76%	77%	75%
Customer-focused and treats customers as if they're valued	75%	72%	72%
Is a trusted and trustworthy company	80%	82%	76%

Base: total respondents with an opinion



## How can service to customers be improved?

The electric utility industry is in a state of continuous transformation. External factors - including shifts in governmental policies, a global thrust to conserve energy, advances in new technologies and power generation are driving massive changes throughout the industry. LDCs of today and of the future can also expect a much more intense level of customer involvement. UtilityPULSE research shows customers want to be heard.

Despite all the talk today centered on quality, new processes and systems, continuous improvement, and costs, unless all of this is aimed at obtaining customer satisfaction it will not be worth much over the longer term.

Qualitative questions typically do not provide the statistical richness which is associated with a quantitative question. However, they do provide words, phrases, insights into the thinking patterns and/or feelings of customers. This means qualitative questions have an interpretive richness that assist in deriving meaning from the survey. The broader range of suggestions we are getting when conducting the survey is a sign the customer base is becoming more and more segmented. Not all customers are the same.

The struggle for electric utilities is finding the right balance between cost-effective, technology-enabled approaches to customer services and person-to-person contact.

Customers want their utility to focus on what matters most; offer products and services which “make a difference in their life”, “gives them peace of mind” and “delivered by trusted and credible people”.

*And we are interested in knowing what you think are the one or two most important things Hydro Ottawa could do to improve service to their customers?*

One or two most important things ‘your local utility’ could do to improve service	
	Hydro Ottawa
Better prices/lower rates	52%
Improve/simplify/clarify billing	8%
Better communication with customers	7%
Get involved with green energy	7%
Improve reliability of power	6%
Information & incentives on energy conservation	5%
Stop involvement with green energy	4%
Bury power lines	4%
Be more efficient	3%
Eliminate SMART meters	3%
Better outage information	3%
Staff related concerns i.e. customer service	3%

Base: total respondents with suggestions

## What do customers think about electricity costs?

The reduction in the cost of electricity by 25% has translated into a much larger percentage in the fall of 2017 who say paying for electricity is “not a worry” versus the Fall of 2016 and the Winter of 2017 (before the announced change). This is significant because ever since our first year of dedicated research (1999) there has been a high correlation between ability to pay and satisfaction.

In private industry typically when a person “pays more” they “get more”. Well, unfortunately for the LDC world, for the last 10 years the cost of electricity has changed dramatically, customers certainly are “paying more” even for those who have worked hard on conservation, but they haven’t seen where they “get more”. Part of the issue is the nature of the business – electricity is electricity and distribution is distribution.

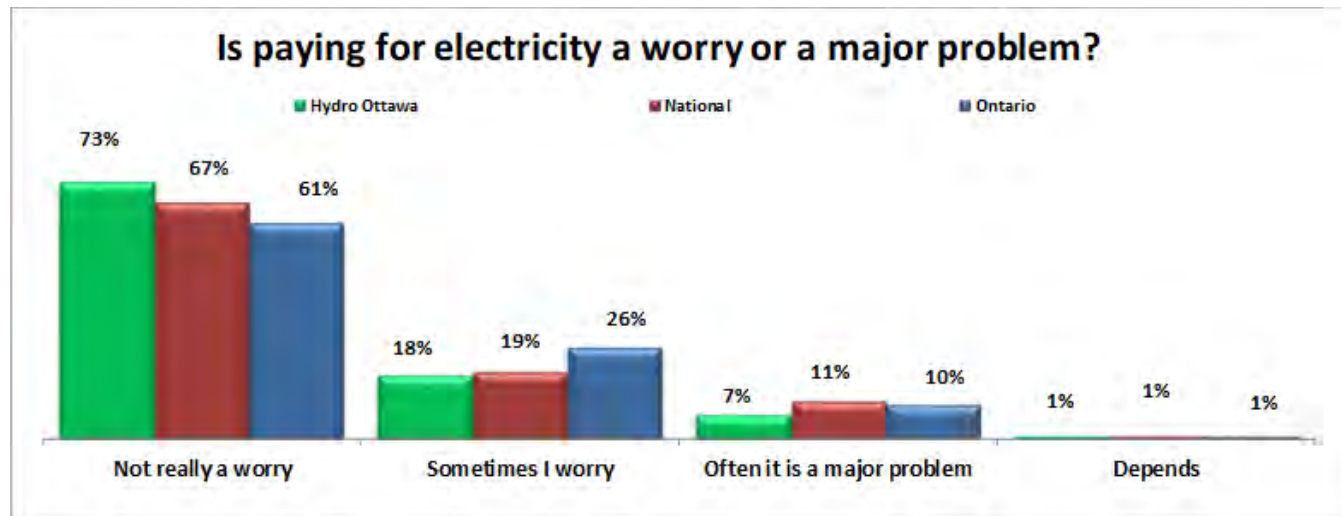
It doesn’t help that there have been many controversies involving costs. It also doesn’t help that many customers felt they weren’t being heard. To us, it is no wonder there were so many customers who were “worried” about paying their electricity bill who became angry over what was going on in the industry. Especially worrisome for customers was the reality that wages and inflation were about 20-25 percent over a 10 year period, but the costs were over 100%. Customers crave certainty of costs but that is not what they’ve received.

*Next, I am going to read a number of statements people might use about paying for their electricity. Which one comes closest to your own feelings, even if none is exactly right? Paying for electricity is not really a worry,*

*Sometimes I worry about finding the money to pay for electricity, or Paying for electricity is often a major problem?*

Is paying for electricity a worry or a major problem?				
	Not a worry	Sometimes	Often	Depends
Hydro Ottawa	73%	18%	7%	1%
National	67%	19%	11%	1%
Ontario	61%	26%	10%	1%

Base: total respondents



Base: total respondents

Is paying for electricity a worry or a major problem?				
	Not a worry	Sometimes	Often	Depends
Hydro Ottawa				
<\$30,000	38%	10%	0%	60%
\$30<\$75,000	28%	11%	1%	82%
\$75,000+	13%	3%	0%	0%

Base: total respondents

UtilityPULSE segmented respondents into 3 “average kWh groups”. Group 1 represents 25% of the customer base derived from segmenting the customer data file into the first quartile of kWh usage. Group 2 represents the middle 50% of the customer base; and Group 3 represents the top quartile of kWh customers. Group 1 uses the least amount of electricity on average, while Group 3 uses the most.

Is paying for electricity a worry or a major problem?			
Hydro Ottawa	kWh Group 1	kWh Group 2	kWh Group 3
Not really a worry	73%	71%	75%
Sometimes I worry	17%	19%	15%
Often it is a major problem	6%	6%	9%
Depends	2%	1%	0%

Base: total respondents

Is paying for electricity a worry or a major problem?				
	Not a worry	Sometimes	Often	Depends
<b>Ontario</b>				
<b>2017</b>	61%	26%	10%	1%
<b>2016</b>	49%	31%	16%	3%
<b>2015</b>	59%	25%	10%	2%
<b>2014</b>	59%	26%	11%	2%
<b>2013</b>	66%	21%	11%	1%
<b>National</b>				
<b>2017</b>	67%	19%	11%	1%
<b>2016</b>	58%	29%	10%	2%
<b>2015</b>	67%	22%	8%	2%
<b>2014</b>	69%	20%	7%	3%
<b>2013</b>	70%	18%	8%	2%

Base: Ontario and National Benchmarks

We did some back checking of data, and matched up things such as satisfaction with the cost increase for that year. We found that Ontario customers, by and large, handled low to mid-single digit increases relatively well, but in the years following a double-digit increase, LDC survey numbers were severely impacted.

## What do small commercial customers think?

Based on data in the UtilityPULSE database, small commercial customers have relatively similar views about their utility. The tables associated with this report will contain your specific information as it relates to residential and commercial customers. A word of caution, smaller data samples create greater swings or spreads in the data, hence mitigating the effect of a small data sample by using the UP database.

### **Small Commercial Customer (General Service < 50kW Demand)**

A small commercial customer is defined by the OEB as a non-residential customer in a less than 50 kW demand rate class. These customers are similar to the residential customer in that their bill does not have a demand component to it and their charges are based upon KWH of consumption. Most of these customers would occupy small storefront locations or offices



An area of concern, is about the LDC's ability to "target" its communications to the type of business. Beyond having a contact telephone number, company name and address there isn't much "knowledge" about the small commercial customer. In a time when "targeted" communication is important, knowing the type of category of

small commercial account would assist LDCs in delivering meaningful messages in an effective way. This could be particularly important in the area of energy conservation i.e., pulling together messages and programs for specific types of businesses. After all, a small restaurant is different from a small accounting office.

Satisfaction: Pre & Post		
Satisfaction (Top 2 Boxes: 'very + somewhat satisfied')	Residential	Commercial
Initially	89%	91%
End of Interview	89%	90%

Base: total respondents from the 2017 UtilityPULSE Database

As it relates to the six attributes associated with customer service:

Very or fairly satisfied with...	Residential	Commercial
The time it took to contact someone	76%	80%
The time it took someone to deal with your problem	69%	77%
The helpfulness of the staff who dealt with your problem	74%	79%
The knowledge of the staff who dealt with your problem	73%	81%
The level of courtesy of the staff who dealt with your problem	82%	88%
The quality of information provided by the staff member	73%	79%

Base: total respondents from the 2017 UtilityPULSE Database



Both Residential and Commercial respondent scores reflect an undercurrent of discontent with customer service.

Killer B's: Outages & Bills problems		
	Residential	Commercial
Respondents with outage problems	36%	31%
Respondents with billing problems	16%	13%

Base: total respondents from the 2017 UtilityPULSE Database

Overall satisfaction with most recent experience		
	Residential	Commercial
Top 2 Boxes: 'very + somewhat satisfied'	74%	79%
Bottom 2 Boxes: 'somewhat + very dissatisfied'	23%	20%

Base: total respondents from the 2017 UtilityPULSE Database

Comparisons between Residential and Commercial		
Loyalty Groups	Residential	Commercial
Secure	24%	29%
Still Favourable	19%	18%
Indifferent	47%	44%
At risk	10%	9%

Base: total respondents from the 2017 UtilityPULSE Database

Loyalty Model Factors		
	Residential	Commercial
Very/somewhat satisfied	89%	91%
Definitely/probably would continue	82%	87%
Definitely/probably would recommend	74%	81%

Base: total respondents from the 2017 UtilityPULSE Database

Important attributes which describe operational effectiveness		
	Residential	Commercial
Provides consistent, reliable electricity	91%	92%
Delivers on its service commitments to customers	88%	89%
89%	86%	87%
Quickly handles outages and restores power	89%	90%
Makes electrical safety a top priority	89%	90%
Is efficient at managing the electricity distribution system	83%	85%
Is a company that is 'easy to do business with'	85%	86%
Operates a cost effective electricity distribution system	70%	72%
Standard of reliability meets expectations	90%	91%

Base: total respondents from the 2017 UtilityPULSE Database with an opinion

Important attributes which shape perceptions about service quality and value		
	Residential	Commercial
Is pro-active in communicating changes and issues which may affect customers	78%	82%
Provides good value for money	68%	67%
Customer-focused and treats customers as if they're valued	80%	83%
Deals professionally with customers' problems	85%	88%
Spends money prudently	78%	76%
Quickly deals with issues that affect customers	83%	85%
Provides information and tools to help manage electricity consumption	80%	80%
Provides information to help customers reduce their electricity costs	76%	75%
The cost of electricity is reasonable when compared to other utilities	57%	56%

Base: total respondents from the 2017 UtilityPULSE Database with an opinion

Important attributes which shape perceptions about corporate image		
	Residential	Commercial
Is a respected company in the community	85%	87%
A leader in promoting energy conservation	78%	81%
Keeps its promises to customers and the community	82%	85%
Is a socially responsible company	82%	84%
Is a trusted and trustworthy company	85%	87%
Adapts well to changes in customer expectations	77%	76%
Overall the utility provides excellent quality services	87%	89%

Base: total respondents from the 2017 UtilityPULSE Database with an opinion

Importance of online access for the following features:		
Top 2 Boxes: 'very + somewhat important'	Residential	Commercial
Reporting or inquiring about an issue	74%	74%
Researching information about energy conservation	79%	79%
Having a web chat feature on the website	51%	54%
Automated alerts when electricity usage exceeds a prearranged threshold	72%	74%
Review and pay your bill online (through utility's website)	69%	72%
Power outage alerts	81%	82%
Tools and calculators to help you manage your electricity consumption	68%	69%
Comparison of your electricity consumption with your neighbours	51%	53%
Automated alert to predict your upcoming bill	59%	60%
Automated alert to remind you of your bill due date	60%	66%

Base: total respondents from the 2017 UtilityPULSE Database

How confident would you say you are in the Ontario electricity industry from electricity generators, regulators and distributors to meet customers' expectations regarding electricity quality, reliability and price?

'Customers are well served by the electricity system in Ontario' – do you agree?		
	Residential	Commercial
Top 2 Box: 'Strongly + somewhat' agree	60%	64%

Base: total respondents from the 2017 UtilityPULSE Database

<b>'Customer are confident in the electricity industry's ability to meet future expectations regarding quality, reliability and price' – do you agree?</b>		
	<b>Residential</b>	<b>Commercial</b>
<b>Top 2 Box: 'Strongly + somewhat' agree</b>	54%	54%

Base: total respondents from the 2017 UtilityPULSE Database

<b>'Customer are confident in the electricity industry's ability to keep up with technological change' – do you agree?</b>		
	<b>Residential</b>	<b>Commercial</b>
<b>Top 2 Box: 'Strongly + somewhat' agree</b>	66%	71%

Base: total respondents from the 2017 UtilityPULSE Database

<b>Knowledge level about the electric utility industry</b>		
	<b>Residential</b>	<b>Commercial</b>
<b>Extremely knowledgeable</b>	5%	4%
<b>Very knowledgeable</b>	14%	13%
<b>Moderately knowledgeable</b>	48%	49%
<b>Slightly knowledgeable</b>	21%	22%
<b>Not very knowledgeable</b>	13%	12%
<b>Don't know</b>	1%	1%

Base: total respondents from the 2017 UtilityPULSE Database

## Method

The findings in this report are based on telephone interviews conducted for Simul Corp. / UtilityPULSE by Logit Group between October 11 - October 30, 2017, with 600 respondents who pay or look after the electricity bills from a list of residential and small and medium-sized business customers supplied by Hydro Ottawa.

The sample of phone numbers chosen was drawn randomly to insure each business or residential phone number on the list had an equal chance of being included in the poll.

The sample was stratified so that 85% of the interviews were conducted with residential customers and 15% with commercial customers.

In sampling theory, in 19 cases out of 20 (95% of polls in other words), the results based on a random sample of 600 residential and commercial customers will differ by no more than  $\pm 4.00$  percentage points where opinion is evenly split.

This means you can be 95% certain that the survey results do not vary by more than 4.00 percentage points in either direction from results that would have been obtained by interviewing all Hydro Ottawa residential and small and

medium-sized commercial customers if the ratio of residential to commercial customers is 85%:15%.

The margin of error for the sub samples is larger. To see the error margin for subgroups use the calculator at <http://www.surveysystem.com/sscalc.htm>.

Interviewers reached 2,981 households and businesses from the customer list supplied by Hydro Ottawa. The 600 who completed the interview represent a 20% response rate.

The findings for the Simul/UtilityPULSE National Benchmark of Electric Utility Customers are based on telephone interviews conducted with adults throughout the country who are responsible for paying electric utility bills. The ratio of 85% residential customers and 15% small and medium-sized business customers in the National study reflects the ratios used in the local community surveys. The margin of error in the National poll is  $\pm 2.7$  percentage points at the 95% confidence level.

For the National study, the sample of phone numbers chosen was drawn by recognized probability sampling methods to insure each region of the country was represented in proportion to its population and by a method

that gave all residential telephone numbers, both listed and unlisted, an equal chance of being included in the poll.

The data were weighted in each region of the country to match the regional shares of the population.

The margin of error refers only to sampling error; other non-random forms of error may be present. Even in true random samples, precision can be compromised by other factors, such as the wording of questions or the order in which questions were asked.

Random samples of any size have some degree of precision. A larger sample is not always better than a smaller sample. The important rule in sampling is not how many respondents are selected but how they are selected. A reliable sample selects poll respondents randomly or in a manner which insures that everyone in the population being surveyed has an equal chance of being selected.

How can a sample of only several hundred truly reflect the opinions of thousands or millions of electricity customers within a few percentage points?

Measures of sample reliability are derived from the science of statistics. At the root of statistical reliability is probability, the odds of obtaining a particular outcome by chance alone. For example, the chances of having a coin come up heads

in a single toss are 50%. A head is one of only two possible outcomes.

The chance of getting two heads in two coin tosses is less because two heads are only one of four possible outcomes: a head/head, head/tail, tail/head and tail/tail.

But as the number of coin tosses increases, it becomes increasingly more likely to get outcomes that are either close to or exactly half heads and half tails because there are more ways to get such outcomes. Sample survey reliability works the same way but on a much larger scale.

As in coin tosses, the most likely sample outcome is the true percentage of whatever we are measuring across the total customer base or population surveyed. Next most likely are outcomes very close to this true percentage. A statement of potential margin of error or sample precision reflects this.

Some pages in the computer tables also show the standard deviation (S.D.) and the standard error of the estimate (S.E.) for the findings. The standard deviation embraces the range where 68% (or approximately two-thirds) of the respondents would fall if the distribution of answers were a normal bell-shaped curve. The spread of responses is a way of showing how much the result deviates from the "standard mean" or average. In the Hydro Ottawa data on corporate image,

Simul converted the answers to a point scale with 4 meaning agree strongly, 3 meaning agree somewhat and so on (see in the computer tables).

For example, the mean score is 3.72 for providing consistent, reliable electricity. The average is 3.16 for providing information to help customers reduce their energy costs.

For reliable electricity the standard deviation is 0.51. For providing information to help customers reduce their energy costs, the S.D. is 0.87. These findings mean there is a wider range of opinion – meaning less consensus – about whether help to reduce energy costs than about whether Hydro Ottawa energy supplies are reliable.

Beneath the S.D. in the tables is the standard error of the estimate. The S.E. is a measure of confidence or reliability, roughly equivalent to the error margin cited for sample sizes. The S.E. measures how far off the sample's results are from the standard deviation. The smaller the S.E., the greater the reliability of the data.

In other words, a low S.E. indicates the answers given by respondents in a certain group (such as residential bill payers or women) do not differ much from the probable

spread of the answers "predicted" in sampling and probability theory.

In certain instances, all of the sub-datasets from the entire UtilityPULSE database for 2017 were concatenated in order to use the average of all the control samples for comparison. The cumulated population base for these questions was in excess of 10,200.

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**Your personal contact is:**

**Sid Ridgley, CSP**

**Phone: (905) 895-7900 x 29 E-mail: [sidridgley@utilitypulse.com](mailto:sidridgley@utilitypulse.com) or [sridgley@simulcorp.com](mailto:sridgley@simulcorp.com)**



**Hydro Ottawa Limited**

**2017 Electric  
Utility  
Large  
Customer  
Satisfaction  
Survey**

**November 2017**





**The purpose of this report is to profile the connection between Hydro Ottawa Limited (Hydro Ottawa) and its customers.**

The primary objective of the Large Customer Electric Utility Customer Satisfaction Survey is to provide information that will support discussions about improving customer care at every level in your utility.

The UtilityPULSE Report Card® and survey analysis contained in this report is intended to provide data and information that will help guide your decisions for making improvements to your operations.

This is privileged and confidential material and no part may be used outside of Hydro Ottawa without written permission from UtilityPULSE, the electric utility survey division of Simul Corporation.

All comments and questions should be addressed to:

Sid Ridgley, UtilityPULSE division, Simul Corporation

Tel: 905-895-7900 x 29

Email: [sidridgley@utilitypulse.com](mailto:sidridgley@utilitypulse.com) or [sridgley@simulcorp.com](mailto:sridgley@simulcorp.com)



## Connections...Large Customer Survey

[General Service (50-4999 kW)]

The large customer segment (LC) typically looks through a lens of cost impact and reliability for assessing performance of their LDC. This is also the customer segment that would put pressure on the LDC to economize and be innovative. After-all they have had to do both over the past few years in order to mitigate the steep rise in the cost of electricity.

This customer segment is pursuing energy efficiency for reasons such as: reducing costs and/or improving the bottom line, gaining a competitive advantage, and environmental impact. Many companies/organizations in this segment have yearly energy efficiency targets. Given the energy conservation targets that LDCs have, and meeting those targets, will require the participation of this important customer segment.

We believe, based on multi-years of survey research with large(r) customers, there is a need to utilize concepts often called “key account management”. This can be a major challenge when the LDC is mostly used to providing service to residential and small commercial customers.

Recognizing the many changes in the electricity industry coupled with the massive technological changes facing the industry, customer support skills sets are intensifying. For example, Hydro Ottawa representatives are expected to know about a broad range of subjects such as, energy analytics, energy storage, sensor-based energy management systems, and so much more. Your LC



respondents scored 87% compared to the UtilityPULSE (UP) database of 87% on the attribute of being knowledgeable, professional and courteous.

LC customers consistently rate the following service items as most important for utilities to deliver: reliable energy, low prices, and effective communications, especially during energy emergencies. Having a utility that's trustworthy is also extremely important for these customers, particularly when it comes to supplying energy-efficiency advice.

Your survey was conducted from October 19 - November 24, 2017 and is based on one-on-one telephone interviews with individuals who have the responsibility to interact with the utility in the event of a power outage. Survey findings have been enhanced with the inclusion of data from our UtilityPULSE LC Ontario database of customer surveys completed over the past 12 months.



Base: total respondents:  
 Top 2 Boxes: "Strongly agree + agree"



Customer expectations, in very segment, continue to rise – however, more so in the large commercial or key account type customer. For many companies the “energy” file has come under closer scrutiny causing additional work to be done to justify and/or rationalize costs while also developing plans to reduce energy consumption. This, in turn, generates more focus on Hydro Ottawa’s operational attributes and representative attributes.

Operational Attributes		
	Hydro Ottawa	UP Database
Provides consistent, reliable energy	91%	90%
Quickly handles outages and restores power	87%	87%
Accurate billing	80%	85%

Base: total Large Customer respondents with an opinion

Representative Attributes		
	Hydro Ottawa	UP Database
Representatives are knowledgeable, professional and courteous	87%	87%
Is ‘easy to do business with’	78%	83%
Customer-focused and treats customers as if they’re valued	77%	80%

Base: total Large Customer respondents with an opinion



Hydro Ottawa's Large business customers who contacted the LDC, rated the helpfulness of staff at 85%, knowledge of customer service representatives at 82% and the quality of information they provided at 80%.

*"The top two reasons to contact an LDC rep were for billing issues and/or power quality issues. The UP database shows in 2015, 24% of respondents who contacted the LDC called about a billing issue, in 2016 it was 44% and in 2017 it was 38%."*

As stated earlier, the LDC is most knowledgeable serving residential and small commercial customers – we call it a “B to C” business model. However, LC customers live in a “B to B” environment and have higher expectations as they relate to adhering to time commitments, meeting budgets, dealing with issues & problems, having consistency and predictability in the interpretation of policies, programs and standards, and working with people who understand and appreciate the risks & costs when the business is not operating at full strength are certainly valued. For the most part, in a “B to C” world there is an emphasis on transaction management while the emphasis in a “B to B” world is on relationship management. However, we do need to state that customer expectations continue to expand with all customer segments.

While LCs represent a tiny fraction of the customer base, they represent a huge amount of the total kWh used in the LDC's geographic territory. Ensuring LCs have high satisfaction and affinity levels with you is critically important to working with LCs to achieve conservation goals.

The challenge for every LDC is to determine to what degree do they need strategies, policies and standards as they relate to Key Account Management (KAM) principles and practices.



### Numbers at a Glance

	Hydro Ottawa	UtilityPULSE Database
<b>Customer Satisfaction: Initial</b>	90%	90%
<b>Customer Satisfaction: Post</b>	91%	93%
<b>Overall Satisfaction with most recent experience</b>	84%	84%
<b>Customer Experience Performance Rating (CEPr)</b>	83%	85%
<b>Customer Centric Engagement Index (CCEI)</b>	80%	83%
<b>Credibility &amp; Trust Index</b>	81%	83%

Base: total Large Customer respondents: Top 2 Boxes: "Strongly agree + agree"

New for 2017, respondents were asked to identify the top 3 items (out of 6) which would demonstrate an LDC is operationally excellent.

Top 3 items to demonstrate LDC is operationally excellent	
Hydro Ottawa	
<b>1<sup>st</sup></b>	<b>To maintain high quality services</b>
<b>2<sup>nd</sup></b>	<b>To provide professional customer service</b>
<b>3<sup>rd</sup></b>	<b>To supply information about energy conservation</b>

Base: total Large Customer respondents

The 2017 interview also probed respondents about the importance of Hydro Ottawa making investments in eight areas.



Importance of an LDC making investments in the following areas ...		
Top 2 Boxes: 'very + fairly Important '	Hydro Ottawa	UtilityPULSE Database
Power reliability	96%	97%
Power quality	95%	96%
Shorter times for Power restoration	94%	97%
Renewable energy generation	84%	87%
Smart grid	68%	71%
Burying overhead wires	61%	75%
More self-serve options on the website	62%	63%
More information on energy conservation	82%	83%

Base: total Large Customer respondents

Basic research tells us that energy storage is starting to show up on the radar of many organizations. We asked a question about familiarity with this subject matter and if the respondent was familiar with the subject then we proceeded with a follow up question about interest in energy storage. 45% of Hydro Ottawa respondents said they were “very + somewhat familiar” with the subject. 71% of those who said they were familiar with the subject said they were ‘very + somewhat interested’ in implementing energy storage in the next 3 years.





LC customers value pro-active communications and gave Hydro Ottawa a score of 77% (Top 2 boxes) for doing so. The following lists illustrate those attributes with the lowest and the largest “standard deviation”. Looking at the mean alone tells only part of the story. The distribution of responses is important to consider and the Standard Deviation (SD) provides a valuable descriptive measure of this. Standard Deviation (SD) tells us how spread out the responses are -- are they concentrated around the mean, or scattered far & wide? Did all of your respondents rate your LDC in the middle of the scale, or did some love it and some hate it? This may be a marketing communications opportunity and could serve as a gauge of area(s) to focus additional attention or resources.

Attributes with the smallest “Standard Deviation”:

- 1- Provides consistent reliable energy
- 2- Quickly handles outages and restores power
- 3- Overall the utility provides excellent quality services

Attributes with the largest “Standard deviation”:

- 1- Company to recommend
- 2- Provides good value for money
- 3- Is ‘easy to do business with’

As always, we recommend having meaningful two-way dialogue with employees (and others) to leverage the results from this survey. Keep in mind, every interaction is an opportunity to make a positive difference.

Sid Ridgley

Simul/UtilityPULSE

Email: [sidridgley@utilitypulse.com](mailto:sidridgley@utilitypulse.com) or [sridgley@simulcorp.com](mailto:sridgley@simulcorp.com)

November, 2017



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Customer satisfaction is one dimension for measuring the effectiveness of an enterprise. But focusing on customer satisfaction as a sole measure is not enough to gain a picture about how well an operating unit/enterprise might be doing. Customer satisfaction as a measure is an effectiveness measure (not an efficiency measure) on the historical relationship or delivery of services to clients.

**90%** of customers said they were **satisfied** with **Hydro Ottawa**. 90% were satisfied in the UP database.

Base: total respondents:  
Top 2 Boxes: 'very + fairly satisfied'

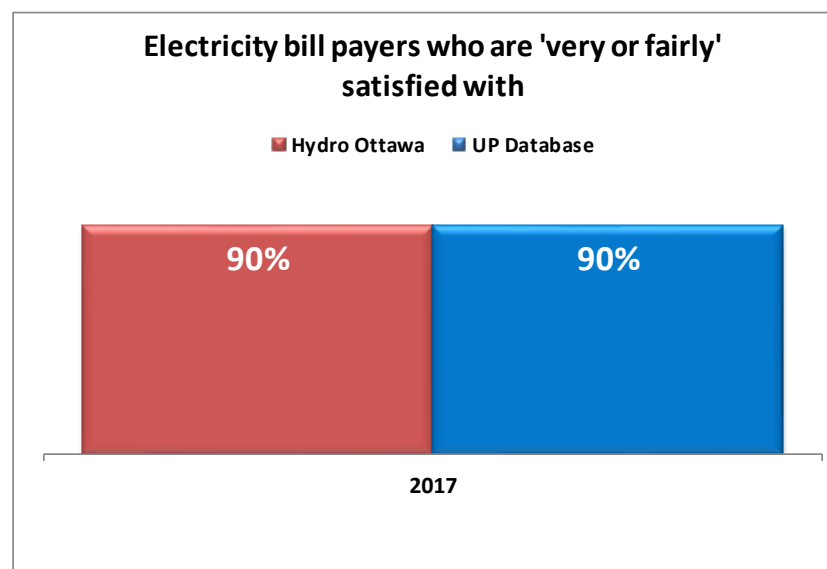
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analytics, energy storage, etc. Another reason to focus and measure satisfaction is to reduce negative word of mouth.

If customers cannot leave what are the reasons why every LDC should place a premium on satisfying customers? Here are some of the important ones:

- 1- Every enterprise has an obligation to satisfy its customers
- 2- Feedback, when acted upon, is beneficial to all parties
- 3- Different LCs have different needs, one-size certainly doesn't fit all
- 4- Stronger relationships with customers generates higher levels of involvement and participation
- 5- Without satisfaction, it is difficult to inspire LCs to pursue new ideas and possibilities
- 6- Economically, high levels of satisfaction lead to less customer complaints and less scrutiny (hence less cost)
- 7- As an effectiveness measure, it prompts discussion about policies, procedures, planning, use of technology, and more
- 8- When things go wrong (and they do), customers with high levels of satisfaction handle the problem far better than customers with very low levels of satisfaction
- 9- For employees, there is a morale boost when working in an organization with a high level of customer satisfaction
- 10- Customers (as well as others) have growing levels of expectations which means the things that satisfy customers today may not tomorrow.

The future behaviour of LCs is greatly influenced by satisfaction levels with their LDC. In an energy world rife with current and future disruptions, LCs will increasingly be turning to their LDC for advice and counsel.



Base: total Large Customer respondents

In the private sector customer satisfaction and loyalty are often seen as essential for survival and success.

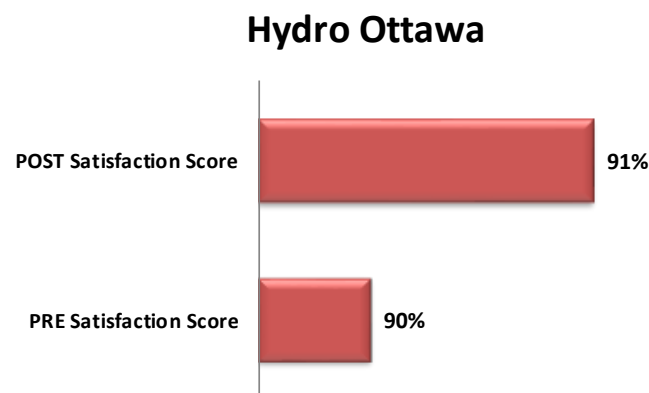
Public sector organizations, especially MUSH sector organizations (municipalities, universities, schools, hospitals), have come to realize that looking after their customers and taking the opportunity to learn from them is key to delivering services which are both effective and efficient.

Large commercial customers are not the same as a residential or small commercial customer. After 19 years of continued research with electric utility customers, expectations of their electric utility go far beyond “keeping the lights on”, “billing me properly”, and “restoring power quickly”. For LC’s electricity is an input cost for delivering their products or services. The cost of electricity can affect pricing and/or profitability of the LC.

**Satisfaction** happens when utility core services meet or exceed customer's needs, wants, or expectations.

- **Loyalty** occurs when a customer makes an emotional connection with their electric utility on a diverse range of expectations beyond core services.

In the Simul/UtilityPULSE Customer Satisfaction survey, the overall satisfaction question is asked both at the beginning (PRE) and the end (POST). Asking the general satisfaction question at the start of the survey avoids bias and we obtain a spontaneous rating. This allows measurement of customers' overall impressions of the utility prior to prompting them to think of specific aspects of the



Base: total Large Customer respondents

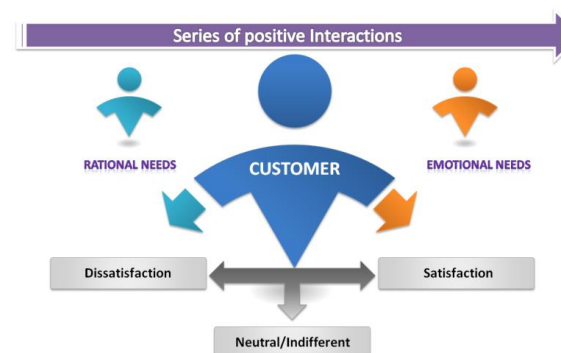
relationship. After we have asked about specific aspects of the customer experience, we gain a more *considered* (or conditioned) response. LCs expect certain things from their electric utility such as being able to get speedy service, professionalism, problem resolution, understanding and responsiveness.

Satisfaction alone does not make a customer loyal; a willingness to commit and advocate for a company along with satisfaction identifies the three basic customer attitudes which underpin loyalty profiles. While satisfaction is an important component of loyalty, the UtilityPULSE loyalty definition includes attitudinal and emotive components. However, Customer satisfaction is a gateway to earning loyalty.

Customer Satisfaction		
Top 2 Boxes: 'very + fairly satisfied'	Hydro Ottawa	UP Database
Initially	90%	90%
End of interview	91%	93%

Base: total Large Customer respondents

Customers, as human beings, are both rational and emotional. The rational side of the customer holds the LDC accountable for doing its job (as contracted), thereby fulfilling the customer's basic needs. The emotional side of the customer is about fulfilling expectations. Meeting rational needs – at best – gets the customer to a neutral state and at worst creates dissatisfaction. Emotional needs, when met, assuming base level rational needs are met, can move a customer from neutral to higher levels of satisfaction.



Every LDC executive we know, would (probably) raise their hand and say that they believe customer satisfaction is important for business success – even in a virtual monopoly business. Based on our experience most LDCs have been honing their skills at being professional, knowledgeable and efficient when handling customer problems. While this has been, and will continue to be important, being good at these things promotes a transaction by transaction orientation. There is growing evidence that LDCs appreciate it when LDCs have more than a “buyer-supplier” relationship.

Fostering true loyalty and engagement with customers begins at a basic level. In addition, satisfied and engaged employees who work in an organizational culture that promotes service excellence is key for completing the job both efficiently and effectively. After-all, employees do more than deliver customer service – they personalize the relationship between customer and the utility.

One of the most illuminating results of your survey, was the relationship between satisfaction and the attribute of Trust and Trustworthiness. When trust is high so is satisfaction, when trust is low so is satisfaction.

Relationship between Satisfaction and the attribute of Trust & Trustworthiness		
	Very + Fairly Satisfied	Fairly + Very Dissatisfied
Hydro Ottawa is a trusted and trustworthy company	97%	55%

Base: total Large Customer respondents

## Customer Service

There is no way the quality of customer service can exceed the quality of the people delivering it. LDCs can have all the elements of customer service in place, but if LCs are disappointed with the way their transaction was handled or its results, they will not be satisfied. There are lots of things the LDC and its people cannot control, but employees can control the quality of the experience.



It is important to ensure LDC customer service agents have what they need to serve your customers anytime, on any channel. In a multi-platform world for delivering customer service, it is important to note that LDCs expect consistency and professionalism regardless of the means of contact.

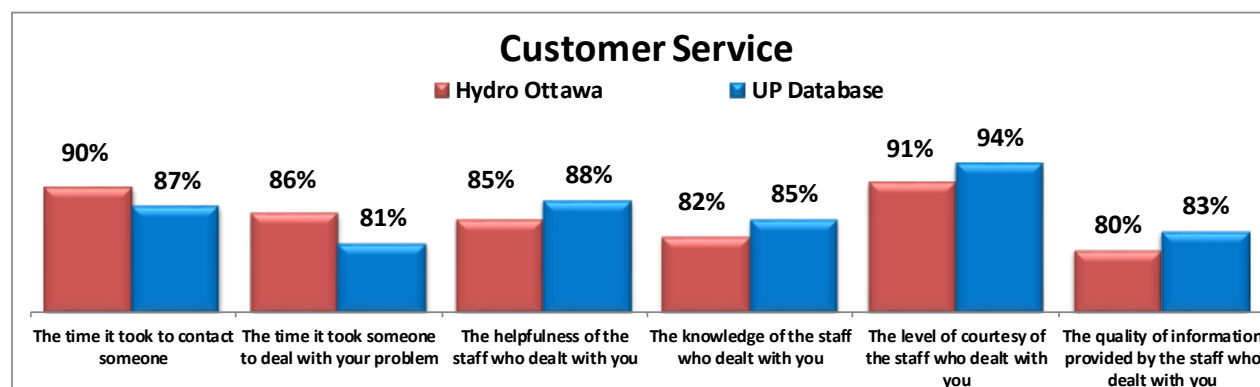
Respondents, who contacted their utility about a problem, were asked about six aspects of their most recent experience with a representative from Hydro Ottawa:

- Information – quality of information provided
- Staff attitude – level of courtesy
- Professionalism – the knowledge of staff
- Delivery – helpfulness of staff
- Timeliness – the length of time it took to get what they needed
- Accessibility – how easy it was to contact someone

Attempts to contact the LDC		
	YES	NO
Did you contact the LDC regarding your problem?	50%	50%

Base: total Large Customer respondents with a problem

Customers value speed and responsiveness especially as it relates to solving problems. The more flexibility you're able to offer and the more empowerment given to employees, the better able employees will be to meet those "speed" and "responsiveness" requirements. Customers benefit, too, when employees are able to resolve problem issues "on the spot" instead of having to "talk to my manager." A recommendation that we consistently make to all LDC executives, is to ensure that your company professionals have the empowerment and decision-making authority necessary to make things happen quickly.



Base: total Large Customer respondents with a problem

The survey data shows that 50% of your Large customers contacted the utility about a problem, with 82% of them believing the problem was resolved. When asked about their most recent experience with the utility, 84% of those customers say they are "very and somewhat satisfied" with the way the utility handled their problem.

Overall satisfaction with most recent experience		
	Hydro Ottawa	UP Database
<b>Top 2 Boxes: 'very + fairly satisfied'</b>	84%	84%

Base: total Large Customer respondents who contacted the utility

There is a difference between fixing a problem and engaging a customer. The key to resolving issues and improving customer engagement is to think beyond problem resolution. Though all customers want a satisfactory resolution to their problem, they are also concerned with how the utility handles that problem. Companies do not absolve themselves by fixing the issue; they do so by taking care of their customers' emotional needs as well.

Do you consider the problem solved?		
	Hydro Ottawa	UP Database
<b>Solved = Yes</b>	82%	80%

Base: total Large Customer respondents who contacted the utility

Top reasons why Large Customers contact their LDC		
	Hydro Ottawa	UP Database
Billing issue	36%	38%
Power quality issue	19%	23%
Connect or Disconnect	11%	10%
Ways to save energy	9%	6%
Access to equipment	6%	0%
Account updates	5%	0%
Rebates/incentives for conserving energy	5%	5%
Incentive programs	5%	3%
Install or replace a meter	4%	3%
Maintenance/repair request	3%	6%
Price or cost	3%	4%
Safety issue	2%	2%

Base: total Large Customer respondents who contacted the utility

The key to effective handling of customer issues is: empathy, patience and consistency. Customer issues may not be easy to handle – ever – but we can say “when customers feel ‘no one cares’ that is where rage and outrage exist.”



Your LC survey respondents said they “strongly agree + agree” with the following:

Customer Service attributes:	Hydro Ottawa	UP Database
Customer focused and treats customers as if they're valued	77%	80%
Is pro-active in communicating changes and issues which may affect customers	77%	79%
Is 'easy to do business with'	78%	83%
Representatives provide a high level of consistency when interpreting regulations and policies	79%	81%
Representatives are knowledgeable, professional & courteous	87%	87%

Base: total Large Customer respondents with an opinion

Customers rely on their LDC contact for their knowledge on how best to solve a problem and, they appreciate a representative who will see the problem through to its resolution. When your Large customers are satisfied with the contact they had with a representative, contact satisfaction levels can be equal or higher (92%) than overall customer satisfaction scores; likewise, when customers are less satisfied or dissatisfied with contact satisfaction levels will be lower (40%) than overall scores.

Overall Customer Satisfaction in relation to Satisfaction with contact			
	Overall Customer Satisfaction	Satisfied with contact	Not Satisfied with contact
Top 2 Boxes: 'very + fairly satisfied'	90%	92%	40%

Base: total Large Customer respondents who contacted the utility

## Customer Experience Performance rating (CEPr)

The CEPr score is an effectiveness rating and is affected by many dimensions of service. Every touch point with customers on the phone, website or in-person influences what customers think and feel about the organization. While an excellent transaction today creates a positive experience today, the perception created is that future transactions will be excellent too. Of course, a negative transaction creates the perception that future transactions will be negative.



Employee empowerment is a key success factor in aligning with your customers. All employees, front-line and otherwise, need to understand how their jobs and their performance tie in with the customer experience and customer expectations. If employees feel they are valued, enabled and set up for success, they will routinely go the extra mile to help customers realize value, achieve their desired outcome and have the experience they want. Keep in mind every interaction with a customer is an opportunity to strengthen positive perceptions about the LDC.

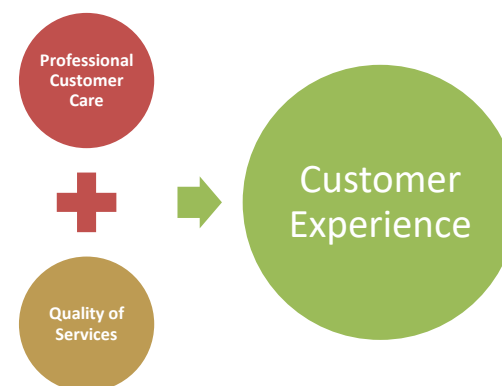
When the customer experience is strong, the opportunity to build loyalty is great. When the experience is a negative one, customers often conclude the organization doesn't care. When a customer believes the organization doesn't care, outrage and anger are a very real possibility

At the heart of the CEPr are 4 central questions:

- Are interactions with the organization professional and productive?
- Is the organization 'easy to deal with'?
- Does the organization effectively meet your needs?
- Does the organization provide high quality services?

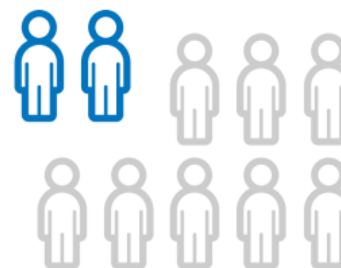
Some of the factors which contribute to the overall Customer experience:

- Delivering accessible and consistent customer service
- Understanding customer expectations
- Maintaining timely resolution timelines
- Providing effective communication(s) according to customer needs
- Demonstrating responsiveness
- Speeding up problem resolution
- Conducting problem analysis to prevent recurring issues
- Easy to do business with
- Seeking customer feedback and following through on recommendations



Customer Experience Performance rating (CEPr)		
	Hydro Ottawa	UP Database
CEPr: Professional Customer Care	81%	84%
CEPr: Quality Services	85%	87%
CEPr: Overall	83%	85%

Base: total Large Customer respondents

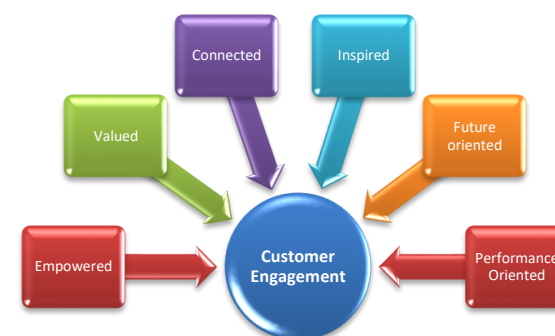


**83% of Large customers have a belief that they will have a good to excellent experience dealing with your professionals.**

# Customer Centric Engagement Index (CCEI)

Customer centric engagement is a measure of “goodwill” towards the utility. Customers who are less engaged, as measured by the CCEI are more likely to let costs and/or price impact their perceptions of their LDC. Customers who are highly engaged are more inclined to look past costs and money issues and use a rational approach to make values-based decisions. Highly engaged customers have a stronger emotional connection to your utility. It’s this emotional connection that will drive commitment, collaboration and involvement.

UtilityPULSE has identified the six key dimensions of what defines customer engagement. They are: empowered, valued, connected, inspired, future oriented and performance oriented. Engagement is more than asking for an opinion or soliciting feedback. Engagement is also: how **customers think, feel and act towards the organization**.



Utility Customer Centric Engagement Index (CCEI)		
	Hydro Ottawa	UP Database
CCEI	80%	83%

Base: total Large Customer respondents

# The Loyalty Factor

Private industry often equates customer loyalty with basic customer retention. If a customer continues to do business with a company, that customer is, by definition, considered to be loyal. If this definition were applied to many companies in the utility industry, all customers would automatically be considered loyal. As such, measuring customer loyalty would appear to be unnecessary.

Natural monopolies (like LDCs) are not really different in what they should measure except that trying to determine which customers are “loyal” or “at risk” is not about their future behaviour but more about their “attitudinal” loyalty (are they advocates?).

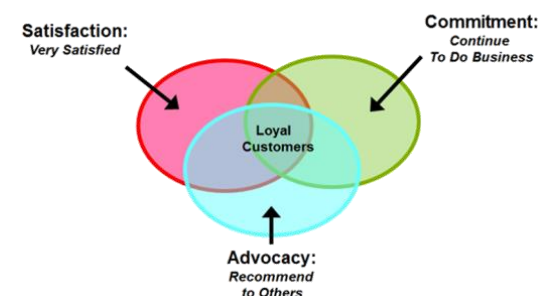
Perhaps a better or more relevant way for utilities to approach the definition of customer loyalty is to further expand how they think about loyalty. Consider the following definition: Customer loyalty is an emotional disposition on the part of the customer that affects the way(s) in which the customer (consistently) interacts, responds or reacts towards the company – its products & services and its brand.



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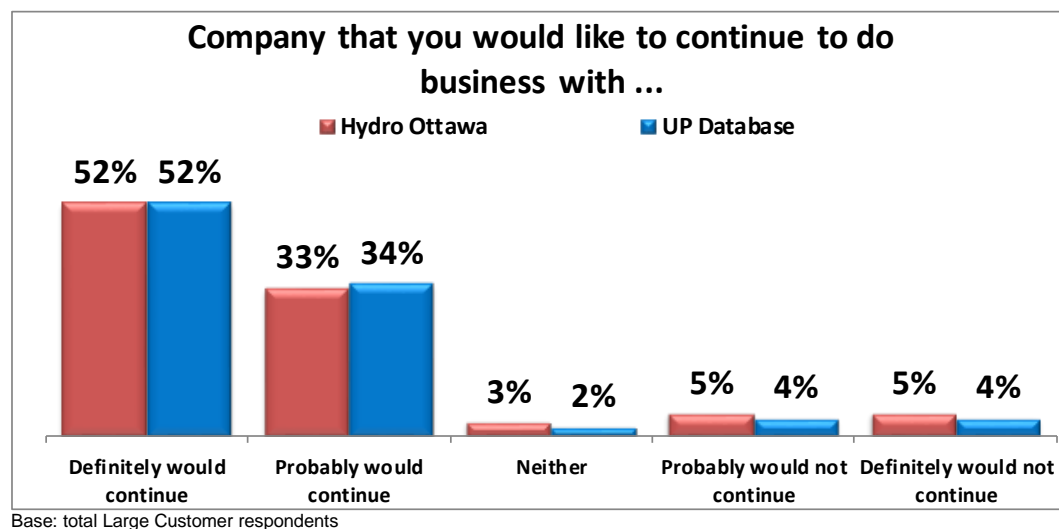
Customer commitment to the local electricity supplier is a very important driver of customer loyalty in the electricity service industry. In a similar way to trust, commitment is considered an important ingredient in successful relationships. In simpler terms, commitment refers to the motivation to continue to do business with and maintain a relationship with a business partner i.e. the local utility. For electric utilities, this measurement is about identifying the number of customers who feel that they “want to” vs “have to” do business with you.

## Customer Loyalty Model



Electricity customers' loyalty – ... Is a company that you would like to continue to do business with		
	Hydro Ottawa	UP Database
<b>Top 2 Boxes:</b>	<b>84%</b>	<b>85%</b>
<b>'Agree strongly + agree somewhat'</b>		
<b>Agree strongly</b>	52%	52%
<b>Agree somewhat</b>	33%	34%
<b>Neither agree or disagree</b>	3%	2%
<b>Disagree somewhat</b>	5%	4%
<b>Disagree strongly</b>	5%	4%

Base: total Large Customer respondents



What does it mean to respond favourably to a company? At a basic level, this can mean choosing to remain a customer. As previously mentioned however, this is essentially a non-issue for many utility companies. It then becomes necessary to think beyond just customer retention. One needs to consider other ways in which customers can respond favourably toward a company.

Other favourable responses or behaviours can be classified into one of three categories that reflect the concept of customer loyalty:

- Participation
- Compliance or Influence
- Advocacy

Specific examples of potential participatory behaviour in the electric utility industry include:

- Signing up for programs that help the customer reduce or manage their energy consumption
- Using the utility as a consultant when selecting energy products and services from a third party
- Participating in pilot programs or research studies.

Specific examples of potential compliance or influence behaviours that utility customers might exhibit include:

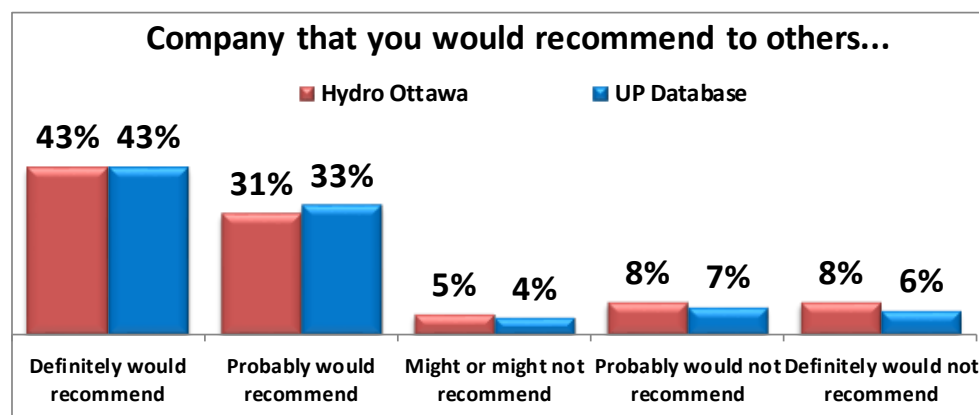
- Seeking the utility's advice or expertise on an energy-related issue
- Voluntarily cutting back on electricity usage if the utility advised the customer to do so
- Accepting the utility's energy advice or referrals to energy contractors or equipment
- Being influenced by the utility's opinion regarding energy- management advice, equipment, or technologies
- Providing personal information that enables the utility to better serve the customer
- Paying bills online.

Creating customer advocates can be especially important for a company in a regulated industry. In the absence of customer advocates, or worse, in a situation where customers speak unfavourably about a company or actively work to support issues that are counter to those the company supports, companies can suffer a variety of negative consequences like increased business costs, lawsuits, fines and construction delays. Specific examples of potential advocacy behaviour include:

- Supporting the utility's positions or actions on energy-related public issues, including the environment
- Supporting the utility's position on the location and construction of facilities
- Providing testimonials about positive experiences with the utility.

Electricity customers' loyalty – ... is a company that you would recommend to others		
	Hydro Ottawa	UP Database
<b>Top 2 boxes:</b>		
<b>'Agree strongly + agree somewhat'</b>	<b>74%</b>	<b>76%</b>
<b>Agree strongly</b>	43%	43%
<b>Agree somewhat</b>	31%	33%
<b>Neither agree or disagree</b>	5%	4%
<b>Disagree somewhat</b>	8%	7%
<b>Disagree strongly</b>	8%	6%

Base: total Large Customer respondents

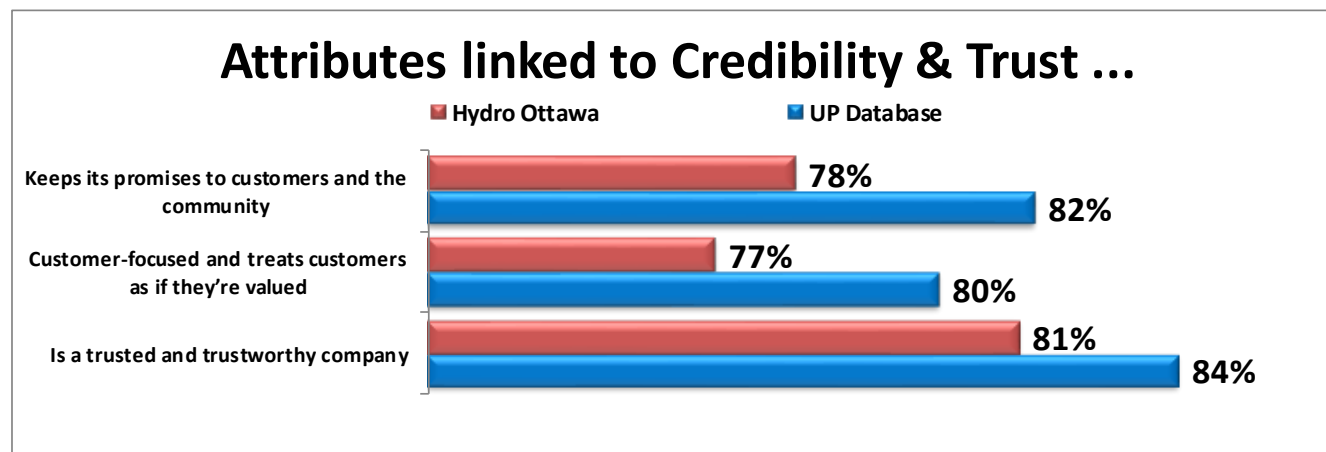


Base: total Large Customer respondents



## Corporate image, credibility & trust

What Hydro Ottawa stands for, the way it works with customers, its profile in the industry are all parts of its brand. Throughout our years of research, our data shows a direct relationship between a positive brand image and the credibility of the LDC.



Attributes strongly linked to Credibility & Trust		
	Hydro Ottawa	UP Database
<b>Keeps its promises to customers and the community</b>	78%	82%
<b>Customer-focused and treats customers as if they're valued</b>	77%	80%
<b>Is a trusted and trustworthy company</b>	81%	84%

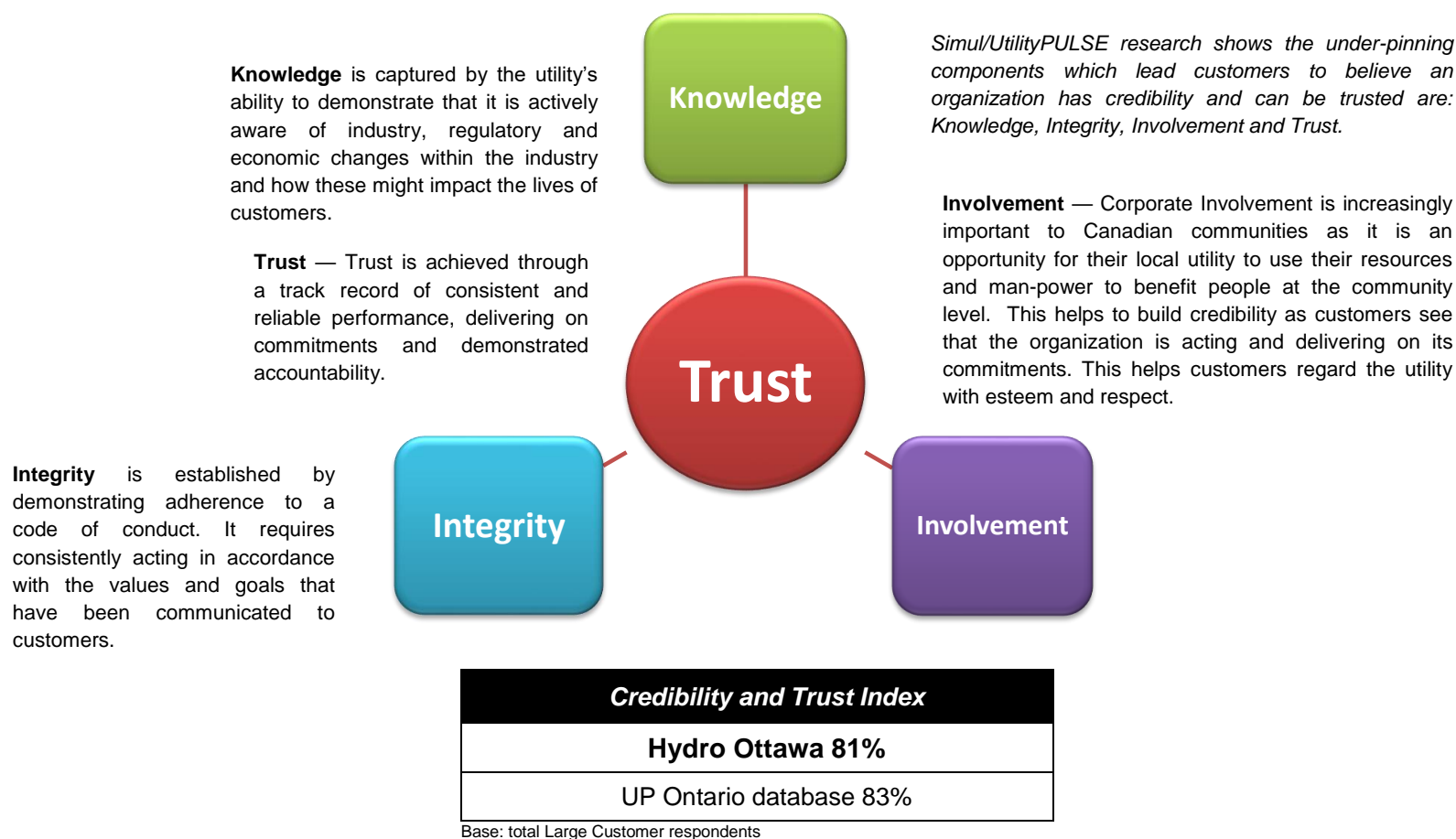
Base: total Large Customer respondents with an opinion

Creating credibility is a process, which advances only through honest, continuous communication between the utility, its regulators, and the public at large.

Pro-active and credible communications from an LDC should do three things for its customers:

- 1- demonstrate competency
- 2- build confidence and
- 3- show a future orientation.

Trust and credibility are indicators of the degree of confidence stakeholders have in your organization's ability to deliver on its commitments. Trust and credibility are outcomes based on what your utility actually does, not what it might be doing.



Brand image is the combination of customers' levels of awareness and association with the enterprise. It constitutes what customers *think* of the LDC's overall brand and what customers *feel* about the LDC based on impressions received about or interactions made with the LDC. Brand image then, is built on name recognition and how they perceive the quality that is promised by the brand.

Attributes strongly linked to a hydro utility's image		
Top 2 Boxes: 'strongly agree + agree'	Hydro Ottawa	UP Database
Customer focused and treats customers as if they're valued	77%	80%
Is pro-active in communicating changes & issues that may affect customers	77%	79%
Is 'easy to do business with'	78%	83%
Accurate billing	80%	85%
Delivers on its service commitments to customers	85%	86%
Keeps its promises to customers and the community	78%	82%
Is a trusted and trustworthy company	81%	84%

Base: total Large Customer respondents with an opinion

Every LDC has a brand and a brand image. While that image is affected by events in the industry beyond the control of the LDC, the reality is there is a cost benefit to improving the customer experience, generating higher levels of customer engagement and growing the loyalty i.e., affinity level with your customers. Customers expect their LDC will conduct its business professionally **AND** be a proactive enterprise.

## How can service to customers be improved?

Today, organizations understand the importance of improving the customer experience they provide if they want to succeed. Therefore, it is important to recognize that to provide customers with service which meets expectations, each area of the business needs to have clear policies, rules, and supporting mechanisms to ensure consistency during each interaction. However, it is difficult to deliver consistently across various customers journeys. Customers are the best source of information on what can be improved across the experience they receive.

It is also important not to neglect the information that they give when they interact with you. Companies need to continually improve existing experiences. This involves listening to both customers and frontline employees to identify pain points within the journey and assessing how they can be overcome.

As well as improving existing processes, you need to look at areas where you could innovate, changing how you operate to add value and benefit customers.

Are there certain subjects that come up frequently and need addressing? Here is what some of your Large customers had to say:

And we are interested in knowing what you think are the one or two most important things 'your local utility' could do to improve service	
Hydro Ottawa	% of all respondents
Better prices / lower prices	42%
Restore power faster	11%
Improve billing / simplify the bill	10%
More energy conservation information	9%
Better communication i.e., notice of work	9%
Quality of energy	9%
Faster customer service response times	8%
More knowledgeable staff	4%
Improve website	3%
Provide information on blackouts/outages	2%
Provide information on electricity generation (solar, wind, etc.)	2%
Satisfied / no problem	16%

Base: total Large Customer respondents



## Investing in Operations

The 2017 survey revisited the topic of investing in operations. Respondents were asked how important it is for their utility to make specific types of investments. It is not surprising Power Reliability, Power Quality and Shorter timelines for power restoration remain the top items. What may be surprising is the degree to which respondents believe it is important to do so.

It is also worthy to note where interest has dropped off or waned over the past 2 years – namely areas such as Smart Grid, renewable energy generation and conservation.

Importance of making investments		
Top 2 Boxes: 'very + fairly important'	Hydro Ottawa	UP Database
Power reliability	96%	97%
Power quality	95%	96%
Shorter timelines for power restoration	94%	97%
Renewable energy generation	84%	87%
Smart Grid	68%	71%
Burying overhead wires	61%	75%
More self-serve options on website	62%	63%
More information on energy conservation	82%	83%

Base: total Large Customer respondents

## Operational Excellence

Being operationally excellent is an important aspect of every well-functioning organization – especially those that wish to create value for their owners. While there are those in business circles who ascribe to the definition of operational excellence which focuses on eliminating waste, fixing problems and standardizing processes; we believe that becoming operationally excellent also embodies activities such as engaging customers, providing professional customer service, and information to help customers solve problems.

Respondents were asked to choose which of six named items is the most important for an LDC to demonstrate that it is operationally excellent; the six named items being as follows:

- To provide professional customer service
- To exhibit leadership in the electricity sector
- To engage with its customers
- To provide tools for interacting with the utility
- To supply information about energy conservation
- To maintain high quality services

*“The top two ranked items provide some insight into what it takes to be viewed as operationally excellent. They are:*  
*- maintain high quality services, and*  
*- provide professional customer service.*  
*These two items have strong linkage to the building (and maintaining) of high levels of customer satisfaction.”*

Which one of the following is the most important item to you for an LDC to demonstrate that it is operationally excellent?		
	Hydro Ottawa	UP Database
To maintain high quality services	50%	50%
To provide professional customer service	22%	21%
To supply information about energy conservation	10%	11%
To engage with its customers	7%	8%
To provide tools for interacting with the utility	6%	4%
To exhibit leadership in the electricity sector	4%	5%
Refused	2%	1%
Don't know	1%	1%

Base: total Large Customer respondents



**50%** of your Large customers believe “*maintaining high quality services*” to be the *most* important to operational excellence.

Which item represents the second most important item for you?		
	Hydro Ottawa	UP Database
To provide professional customer service	29%	31%
To supply information about energy conservation	19%	16%
To maintain high quality services	17%	19%
To engage with its customers	13%	14%
To provide tools for interacting with the utility	9%	8%
To exhibit leadership in the electricity sector	7%	8%
Don't know	2%	2%
Refused	2%	2%

Base: total Large Customer respondents who made an initial choice



**29%** of your Large customers believe “*providing professional customer service*” to be the *second* most important item to demonstrate operational excellence.

Which item represents the third most important item for you?		
	Hydro Ottawa	UP Database
To supply information about energy conservation	23%	20%
To engage with its customers	20%	18%
To provide professional customer service	16%	17%
To exhibit leadership in the electricity sector	12%	12%
To provide tools for interacting with the utility	12%	14%
To maintain high quality services	10%	12%
Don't know	6%	5%
Refused	3%	3%

Base: total Large Customer respondents who made an initial or secondary choice



**23% of your Large customers believe “*supplying information about energy conservation*” to be the *third* most important to operational excellence.**

## Thinking ahead... a look into the future

Looking through the microscope while simultaneously looking through the telescope is what helps companies be more relevant & successful today while they prepare to be successful again “tomorrow” in a changed world. Though there are many factors which can affect the level of consumption for larger customers, your 2017 survey did ask respondents about the future.



...Thinking ahead over the next 1-2 years do you anticipate any changes to your business that would affect electricity consumption more than 5% up or down?		
	Hydro Ottawa	UP Database
Yes	32%	32%
No	63%	63%
Not at liberty to say	0%	0%
Don't know	5%	4%

Base: total Large Customer respondents

For those who did anticipate a change of more than 5% up or down:

...Could you tell us what might cause this change to electricity consumption...		
	Hydro Ottawa	UP Database
Implementing conservation measures	32%	23%
Business is growing	20%	28%
New machinery/change equipment	16%	15%
More efficient lighting	11%	12%
Other	10%	8%
More work (e.g., products and services are being added)	6%	10%
Business is falling off	3%	1%
Retro-fits	3%	2%
Generating own electricity	2%	2%
Costs	2%	4%
Downsizing	1%	0%
More space	0%	2%
Moving to another location	0%	1%
Don't know	2%	3%

Base: total Large Customer respondents

# Energy Storage

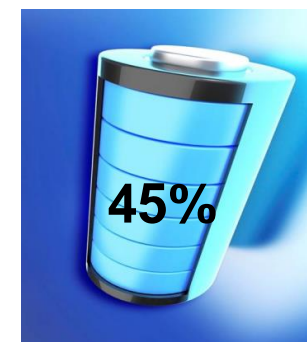
**Definition:** Energy storage is the capture of energy produced at one time for use at a later time.

Energy storage is something that more and more LCs are thinking about. Battery storage technologies along with other energy storage equipment seem to be going from being unfamiliar and novel to being known and economically sensible. The ability to fill up batteries with power (from off-peak times) for peak-shifting and storing production seems to be gaining the interest of consumers and operators alike.

*“Prior to this interview how familiar are you with the subject of energy storage?”*

Familiarity with energy storage such as batteries and other equipment		
	Hydro Ottawa	UP Database
<b>Very familiar</b>	9%	11%
<b>Somewhat familiar</b>	36%	32%
<b>Neither familiar or unfamiliar</b>	0%	0%
<b>Not too familiar</b>	31%	29%
<b>Not at all familiar</b>	25%	19%
<b>Don't know</b>	0%	0%

Base: total Large Customer respondents, may not add to 100% due to rounding



**are familiar with energy storage such as batteries and other equipment**

Base: total Large Customer respondents:  
 Top 2 Boxes: 'very + somewhat familiar'

Your LC survey respondents were asked about their familiarity with energy storage technologies: 45% of respondents indicated they were either "very or somewhat familiar" vs 42% in the UP database, 55% were "not at all or not too familiar" vs 57% in the UP database.

If utilities could store power during periods of low demand, then release it during peak times that would save a considerable sum of money on capital costs, while also smoothing out frequency variations and providing voltage support. Same could be said for business owners; valuable energy can be saved by storing surplus electricity in an energy storage system, and using it when needed. In addition, a business energy storage system could act as a substitute for emergency generators during a power outage. Your LC respondents that indicated they had some familiarity with the subject of energy storage were asked about interest in implementing energy storage in the next 3 years:



71% responded they were interested (“very + somewhat interested”) vs 71% in the UP database, while 28% expressed disinterest (“definitely + somewhat not interested”) vs 28% in the UP database.

Interest in implementing energy storage in the next 3 years		
	Hydro Ottawa	UP Database
Very interested	21%	24%
Somewhat interested	50%	47%
Neither interested or uninterested	1%	0%
Somewhat not interested	9%	9%
Definitely not interested	19%	19%

Base: total Large Customer respondents who were familiar with energy storage, may not add to 100% due to rounding



**71% are interested in implementing energy storage in the next 3 years.**

Base: total Large Customer respondents who were familiar with energy storage

# Electric vehicle charging stations

Society continues to witness innovation in powertrain technologies with an increasing focus on alternatively powered vehicles, in particular plug-in hybrids (PHEVs) and pure electric vehicles (EVs). Past UtilityPULSE research indicates that while interest in so-called "EVs" is gaining traction, people still have lots of questions about what it's like to own them. Specifically, people want to know what types of plug-in vehicles are available, how far they can travel, and where and how difficult it is to charge them. This year's Large Customer survey attempted to probe about electric vehicle charging stations.

*"How many electric vehicle charging stations do you have in facilities in the service territory of Hydro Ottawa?"*

Quantity of Electric Vehicle Charging Stations which currently exist in the LDC's service territory		
	Hydro Ottawa	UP Database
Zero	43%	46%
One	4%	4%
Two	2%	2%
Three	1%	1%
Four	1%	1%
Five +	5%	4%
Don't know	44%	41%

Base: total Large Customer respondents



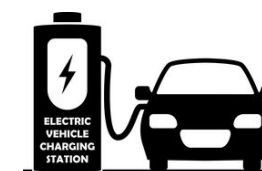
**of respondents say they have at least 2 Electric vehicle charging stations in Hydro Ottawa's service territory.**

Base: total Large Customer respondents

Respondents who said “zero” or “don’t know” were asked: *“Will your organization be installing electric vehicle charging stations in the next 12 months?”*

Planning to install electric vehicle charging stations in the next 12 months		
	Hydro Ottawa	UP Database
Yes	8%	5%
No	82%	83%
Don’t know	10%	12%

Base: total Large Customer respondents who said “zero or don’t know” to quantity of electric vehicle charging stations which currently exist the LDC’s service territory, may not add to 100% due to rounding



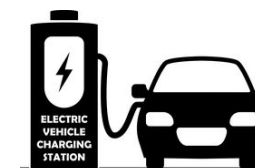
**8% are planning to install electric vehicle charging stations in the next 12 months vs 5% in the UP database.**

Base: total Large Customer respondents who said “zero or don’t know” to quantity of electric vehicle charging stations which currently exist the LDC’s service territory

Respondents who said they currently have “one” or more charging stations were asked: *“Will your organization be installing additional electric vehicle charging stations in the next 12 months?”*

Planning to install ADDITIONAL electric vehicle charging stations in the next 12 months		
	Hydro Ottawa	UP Database
Yes	28%	16%
No	65%	76%
Don’t know	8%	8%

Base: total Large Customer respondents who said “one” or more to quantity of electric vehicle charging stations which currently exist the LDC’s service territory, may not add to 100% due to rounding



**28% are planning to install ADDITIONAL electric vehicle charging stations in the next 12 months vs 16% in the UP database.**

Base: total Large Customer respondents who said “one” or more to quantity of electric vehicle charging stations which currently exist the LDC’s service territory

Of those Large Customer respondents who said “yes” that they planned to install *additional* electric vehicle charging stations or were organizations who currently did not have any electric vehicle charging stations but planned to initiate an installation, we asked:

*“Approximately how many electric vehicle charging stations would your organization be installing in facilities located in the service territory of Hydro Ottawa?”*

Number of electric vehicle charging stations planned to be installed over the next 12 months		
	Hydro Ottawa	UP Database
Zero	3%	7%
One	19%	21%
Two	26%	26%
Three	13%	8%
Four	13%	12%
Five +	26%	26%

Base: total Large Customer respondents who are planning to install electric vehicle charging stations in the next 12 months

**19% are planning to install at least 1 electric vehicle charging stations in the next 12 months vs 21% in the UP database**

Base: total Large Customer respondents who are planning to install electric vehicle charging stations in the next 12 months





## Appendix A: Recommendations for your next Large Customer Survey

This group of customers are notoriously difficult to connect with and to do a survey with. After-all anyone in a managerial position, in any company, typically doesn't have much time. However, to improve the willingness of people to participate "next time" we recommend:

1. Continuously improving the quality of customer information contained in your system remains a highly important activity. We recommend conducting a verification check, at least annually.
2. While the response rate was acceptable in 2017, we do recommend sending a pre-notification letter/postcard/email to customers or to a department (if name is unknown) letting them know about the upcoming survey and how they could go about updating their contact information; when the survey is conducted again in the future.
3. If you have "assigned" Hydro Ottawa personnel to an account, consider having them reach out to their assigned accounts prior to conducting the next survey.
4. Send out a "thank you for participating in the survey" memo/letter/email with some highlights.
5. Track LC customer inquiries to help shape questions in future surveys.



## Appendix B: Operational Recommendations:

- 1- Key-account management principles continue to evolve. A review of strategies, policies and standards can be a productive exercise. Continue to review your definition of Key Accounts and then refine your Key Account Management (KAM) strategy & goals.
- 2- Undertake a review of which Key Accounts get a visit (by whom) and the frequency of visits.
- 3- We believe the next level of KAM will involve understanding LC in various industry segments. We recommend Hydro Ottawa professionals gather industry knowledge.
- 4- Take a look at the attributes with the highest “don’t know” answers. Help the customer base get “in the know”. This would have some marketing/communications implications.
- 5- When/if there is an invoicing inquiry, we recommend that the assigned Hydro Ottawa account professional be made aware of the inquiry and the outcome (assuming the invoice issue didn’t come through the assigned representative).
- 6- It may be true the LDC doesn’t know a lot about its larger customers, but it may also be true the larger customer doesn’t know much about their LDC. We recommend a marketing communications plan that helps customers learn/understand how Hydro Ottawa “provides good value” or “adapts to customer expectations”, etc.
- 7- Consistency is valued by customers. We recommend that Hydro Ottawa account professionals ensure they are consistent in their answers to various issues/problems that Large Customers face.



- 8- As we look into the future, and recognizing the high degree of attention the electricity industry continues to attract, we recommend the LDC review its processes and standards around activities/projects that could have an impact on LC perceptions regarding the attributes of “easy to do business with” and “keeps its promises.”
- 9- Your marketing communications plan could incorporate ideas/items that help the recipient conclude that you do a lot to understand your customer’s wants & needs.
- 10-Look for ways to provide additional value to your Key Accounts such as:
- a. Holding an on-site seminar regarding energy conservation for employees
  - b. Conducting an energy consumption review
  - c. Use power quality measuring equipment for monitoring quality.
- 11-Questions and opportunities around green energy generation, energy storage, energy conservation, and energy analytics, continue to be of interest to Commercial accounts. Targeted information sessions/seminars would be a value-added activity.
- 12-In 2018 & 2020 your LDC will be reporting results from its “public safety” survey as this is a measurement on an LDC’s scorecard. Targeted information sessions/seminar on the premises of the larger commercial customer could potentially be a way to educate more people in the community about electricity safety and being seen as providing value.



- 13-In addition to #12, identifying Key Accounts with active Safety Committees could present an excellent opportunity to provide electricity safety information.
- 14-Take a look at your website to determine what “self-service” options can be added or improved e.g., request for connect or disconnect.
- 15-Consider reaching out to Building Owners and Managers Association (BOMA), [or other building management association] to better understand the issues that building managers face.
- 16-Similar to #15, actively reach out to electrical contractors and commercial real estate developers to gather feedback regarding what they perceived the needs and expectations of the larger customer.
- 17-Though this may be something that you are already doing, we recommend that you run a “mock emergency power outage/restoration” scenario with your largest customers on an annual basis.
- 18-Marketing communications should be tailored to the customer segment and biased towards being practical rather than flashy – keep the communications both short and relevant.



## Method

The findings in this report are based on telephone interviews conducted for Simul Corp./ UtilityPULSE by the Logit Group between October 19 - November 24, 2017, with respondents have the responsibility to interact with their electric utility when there is an outage.

The sample of phone numbers chosen was drawn randomly to insure each customer account phone number on the list had an equal chance of being included in the poll.

Small sizes in this customer segment are very small. As such we recommend interpreting the data as “directional information” only. Small sample sizes have a wider margin of error. UtilityPULSE provides you with its database information to help interpret results.

The margin of error for the sub samples is larger. To see the error margin for subgroups, use the calculator at <http://www.surveysystem.com/sscalc.htm>.

The margin of error refers only to sampling error; other non-random forms of error may be present. Even in true random samples, precision can be compromised by other

factors, such as the wording of questions or the order in which questions were asked.

Random samples of any size have some degree of precision. A larger sample is not always better than a smaller sample. The important rule in sampling is not how many respondents are selected but how they are selected. A reliable sample selects poll respondents randomly or in a manner that insures that everyone in the population being surveyed has an equal chance of being selected. Completing 301 surveys in a population sample size of approximately 2,346 generates a margin of error of +/- 5.27%, 19 times out of 20.

Data from the UtilityPULSE database is comprised of Ontario based customers [ $>50\text{kW}$ ] - Large Commercial customer surveys completed over the course of the previous 12 months.

Interviewers completed 301 surveys from a random generated customer list supplied by Hydro Ottawa. Cooperation from respondents, when reached, was very good with a participation ratio of 13%.



Good things happen when work places work. You'll receive both strategic and pragmatic guidance about how to improve Customer satisfaction & Employee engagement with leaders that lead and a front-line that is inspired. We provide: training, consulting, surveys, diagnostic tools and keynotes. The electric utility industry is a market segment that we specialize in. We've done work for the Ontario Electrical League, the Ontario Energy Network, and both large and small utilities. For nineteen years we have been talking to 1000's of utility customers in Ontario and across Canada and we have expertise that is beneficial to every utility.

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 Effectiveness, Managerial Competencies

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**Your personal contact is:**

**Sid Ridgley**

**Phone: (905) 895-7900 Fax: (905) 895-7970 E-mail: [sridgley@simulcorp.com](mailto:sridgley@simulcorp.com)**

# Hydro Ottawa

## 2018 Electric Utility Customer Satisfaction Survey



**The purpose of this report is to profile the connection between Hydro Ottawa (Hydro Ottawa) and its customers.**

The primary objective of the Electric Utility Customer Satisfaction Survey is to provide information to support discussions about improving customer care at every level in your utility.

The UtilityPULSE Report Card® and survey analysis contained in this report is intended to capture the state of mind or perceptions about your customers' need and wants – the information contained in this report will help guide your discussions for making meaningful improvements.

This survey report is privileged and confidential material, and no part may be used outside of Hydro Ottawa without written permission from UtilityPULSE, the electric utility survey division of Simul Corporation.

All comments and questions should be addressed to:

Sid Ridgley, UtilityPULSE division, Simul Corporation

Toll free: 1-888-291-7892 or Local: 905-895-7900

Email: [sridgley@simulcorp.com](mailto:sridgley@simulcorp.com)

## Feedback, Information & Insights

Eighteen months ago, customers were very angry about the quickly increasing costs of electricity over the previous 5 or more years. In fact, some years were double-digit increases while wages and inflation hovered around the 2% mark. We know this because the number of survey respondents in the Ontario benchmark survey who said they 'sometimes worry about paying their bill' grew from 21% to 31% and the number of At Risk customers grew from 11% to 17%.

Data from the Hydro Ottawa and Ontario benchmark surveys show the level of "anger" has dramatically reduced. Whether changes in perception were created by the Liberal Government's Spring 2016 reduction by 25% in electricity prices, or the change to a Conservative government June 2018, or the promise of further reductions in electricity prices, or improvements in the economy, or improvements that LDCs have made in managing outages while improving customers service, or all of the above - a major shift towards a more positive view has taken place. Customers who have a positive view of their LDC and the industry exhibit less resistance to change.

For Hydro Ottawa in the Fall 2018 survey 16% of respondents and 21% of the Ontario benchmark respondents said they 'sometimes worry about paying their bill.' Also, the At Risk customer respondent levels were 7% for Hydro Ottawa and 13% for the Ontario benchmark. To be clear, customers are still concerned about the costs of electricity as shown by very low scores in the attribute "The cost of electricity is reasonable when compared to other utilities such as gas, cable or telephone."

Your survey was conducted from September 17 - October 10, 2018 and is based on 600 one-on-one telephone interviews with residential and small commercial customers who pay or look after the electricity bill. Also, survey findings for Hydro Ottawa are enhanced with the inclusion of data from our UtilityPULSE database and the independently produced Ontario and National Benchmarks.

Helping the LDC generate higher levels of customer satisfaction, or maintaining their current high level, will be based on doing the core job as promised by being professional, efficient and cost-effective. But expectations continue to change. For Fall 2018, three key observations emerge from examining the trends in data from the UtilityPULSE database. They are: customers want to know they have been heard, they have reasonable access to services, and, their LDC is pro-actively communicating – especially during emergency situations.



Base: total respondents:  
Top 2 Boxes: "Strongly agree + agree"

## The Core Responsibilities

Hydro Ottawa survey respondents agree strongly + agree somewhat (Top 2 boxes), their LDC: Provides consistent, reliable electricity 93%, Quickly handles outages and restores power 91%, Accurate billing 89% and Makes electricity safety a top priority for employees, contractors, and the public 91%.

## Issues: Billing and Blackouts, the “Killer B’s”

In a world, which is becoming more complex, and where people are time-pressed, outage and billing issues are likely to motivate customers to contact their LDC.

### Problems: Blackouts

Percentage of Respondents indicating that they had a Blackout or Outage problem in the last 12 months			
	Hydro Ottawa	National	Ontario
<b>2018</b>	54%	39%	44%

Base: total respondents



### Problems: Billing issues

Percentage of Respondents indicating that they had a Billing problem in the last 12 months			
	Hydro Ottawa	National	Ontario
<b>2018</b>	8%	9%	9%

Base: total respondents



While it is true, Hydro Ottawa receives very good operational scores, it also has a responsibility to professionally and quickly deal with issues customers contact them about. In a complex electricity industry world, this puts additional strain on the skills and competencies of everyone who interacts with customers.

## Customer Service

Satisfaction with Customer Service			
Top 2 Boxes: 'very + fairly satisfied'	Hydro Ottawa	National	Ontario
The time it took to contact someone	73%	66%	64%
The time it took someone to deal with your problem	70%	72%	65%
The helpfulness of the staff who dealt with you	65%	70%	64%
The knowledge of the staff who dealt with you	62%	70%	64%
The level of courtesy of the staff who dealt with you	74%	78%	70%
The quality of information provided by the staff who dealt with you	65%	73%	61%

Base: total respondents who contacted the utility

Traditionally LDCs handle inbound, or customer initiated communications when there are issues. However, more and more customers have an expectation their LDC will also be proficient with outbound communications regarding the important issues.

## Communication Score – New for 2018

The pressure to communicate via multiple communication platforms continues to increase. There is also an expectation the utility will, from an outbound perspective, contact the customer via their preferred channel.

Communication Score		
	Ontario LDCs	Hydro Ottawa
Communication Score	79%	80%

Base: An aggregate of respondents from 2018 participating LDCs / total respondents from the local utility

### Communication channels preferred by customers to receive notice about Billing Issue

Most, if not all, of our LDC clients, expect that customers will utilize the electronic channels for getting information or dealing with issues. By doing so, costs for the LDC should decrease. However, in a world where customers expect some outbound contact, they expect their LDC to use those channels to communicate directly with them. Therefore, when problems do occur, and the LDC must initiate contact with their customer, it would be beneficial to the process if customers were contacted via channels they most prefer.

Hydro Ottawa's customers' preferred or primary method for Hydro Ottawa to contact them about billing issues are as follows:









Preferred method of communication to receive notice of a billing issue		
	Ontario LDCs	Hydro Ottawa
Telephone	56%	44%
Voice Mail	2%	2%
Text	7%	7%
Email	34%	46%
Don't know	1%	1%

Base: An aggregate of respondents from 2018 participating LDCs / total respondents from the local utility

### Communication during Unplanned Outages

In times of emergency, be they extreme weather events or major equipment failures that cause blackouts and unplanned outages, customer communication can help customers understand what to expect next and when

disrupted electricity service might be restored. Early and effective communication helps increase confidence in and credibility of the electricity service provider.

Method of communication Customers prefer their LDC uses during an UNPLANNED OUTAGE							
Recorded Telephone Message	Email Notice	Posted on the Website	Social Media	Local Radio	Local TV	Text Message	Alert on APP
							
22%	28%	6%	6%	7%	2%	22%	3%

Base: total respondents

### Communication about general news or changes in the industry

Method of communication Customers prefer their LDC uses about general news		
	Ontario LDCs	Hydro Ottawa
Recorded telephone message	22%	13%
Email notice	40%	45%
Posted on the utility's website	7%	11%
Social media	6%	8%
Local radio	5%	6%
Local TV	5%	6%
Text message	9%	7%
Alert on APP	2%	2%

Base: An aggregate of respondents from 2018 participating LDCs / total respondents from the local utility

Notice the difference in the preferred channel based on subject matter. Hydro Ottawa shouldn't, for example, assume a customer who prefers email for a billing issue will want an email for outage issues. These added variables add complexity to capturing and then using each customers' preferences. Getting the most out of your CRM system is becoming increasingly important.

Providing communication channels that are effective and meet customers' needs is key to improving the customer experience. To do this, Hydro Ottawa must understand how customers communicate with you, and how they would like Hydro Ottawa to communicate with them in the future. Knowing this will allow Hydro Ottawa to: allocate resources where they are most needed; tailor services to meet customers' needs; and, identify where improvements can be made.

Customers were asked about their level of satisfaction with the information provided by Hydro Ottawa on the following:

Satisfaction with information provided		
Top 2 Boxes: 'very + fairly satisfied'	Ontario LDCs	Hydro Ottawa
The amount of information available to you about energy conservation	82%	83%
The quality of information available when outages occur	73%	81%
The electricity safety education provided to the public	74%	70%
The timeliness and relevance of information for things such as planned outages, construction activity, tree trimming.	78%	80%

Base: An aggregate of respondents from 2018 participating LDCs / total respondents from the local utility



Based on customer responses, Hydro Ottawa has achieved a score of 80% for Communications while Ontario LDCs rated 79%.

### The Convenience of Services Score – New for 2018

Rising customer expectations and demands means customers expect to be able to contact you 24 hours a day, seven days a week using various communication avenues, i.e. Telephone, your website and/or even social media. Customers expect flexible and more personalized services. Providing customers with clear, easy to access services and information which is easy to understand has a significant impact on the customer experience.



Access to services		
Top 2 Boxes: 'very + somewhat satisfied'	Ontario LDCs	Hydro Ottawa
The availability of call-centre staff Monday to Friday	76%	82%
The 24/7 availability of system operators to respond to outages	77%	80%
The online self-serve options for managing your account	63%	69%
The online self-serve options for request services	56%	57%

Base: An aggregate of respondents from 2018 participating LDCs / total respondents from the local utility |  
 Hours: Ontario LDCs 8:30 am to 4:30 pm, Hydro Ottawa 8:00 am to 8:00 pm and Saturdays 9:00 am to 3:00 pm



### Convenience of Services Score

Based on customer responses, Hydro Ottawa has rated 80% for Convenience of Services while Ontario LDCs rated 79%.

### Credibility & Trust Index

As society becomes more complicated and complex, the opportunities for failure increase. A key to healthy relationships with customers is to be trusted, trustworthy and credible. Hydro Ottawa Credibility & Trust score is 85% while the Ontario benchmark is 80% and the National benchmark is 81%.

### Customer Experience Performance rating (CEPr)

Do customers believe they will have a good experience if/when they do contact their LDC? Or do they believe they must prepare for 'war'? Of course, subject matter and customer affinity levels play a role in determining how a customer might prepare for interaction with a professional at Hydro Ottawa.



Customer Experience Performance rating (CEPr)			
	Hydro Ottawa	National	Ontario
CEPr: all respondents	87%	84%	83%

Base: total respondents

Ensuring that the customer experience is a good one, requires high quality services and well-trained people. Survey respondents gave Hydro Ottawa excellent operational and representative scores.

Operational Attributes			
	Hydro Ottawa	National	Ontario
<b>Provides consistent, reliable energy</b>	93%	89%	90%
<b>Quickly handles outages and restores power</b>	91%	87%	86%
<b>Accurate billing</b>	89%	86%	87%

Base: total respondents with an opinion

Representative Attributes			
	Hydro Ottawa	National	Ontario
<b>Deals professionally with customers' problems</b>	88%	83%	82%
<b>Is 'easy to do business with'</b>	85%	82%	82%
<b>Customer-focused and treats customers as if they're valued</b>	83%	80%	79%

Base: total respondents with an opinion

### Customer Centric Engagement Index

The term "customer engagement" is used by many but understood by few. The purpose of customer engagement is to have two-way interactions which build understanding between the stakeholders and stronger

professional business-like relationships. Customers who are highly engaged are more inclined to look past costs and money issues and be more supportive of what the LDC wants to do or accomplish.

As we have stated in previous reports: Customer Engagement is about how customers think, feel and act towards the organization. Ensuring customers respond positively requires they be rationally satisfied with the services provided AND emotionally connected to the LDC and its brand.

Utility Customer Centric Engagement Index (CCEI)			
	Hydro Ottawa	National	Ontario
<b>CCEI</b>	84%	81%	80%

Base: total respondents

### Customer Satisfaction

By itself, this metric is not good enough to gain a picture of how well an LDC is doing but it is a measure about whether the LDC is “doing the job” as expected. However, without satisfaction, there is no gateway to loyalty.

SATISFACTION SCORES – Electricity customers’ satisfaction			
Top 2 Boxes: ‘very + fairly satisfied’	Hydro Ottawa	National	Ontario
<b>PRE: Initial Satisfaction Scores</b>	94%	91%	91%
<b>POST: End of Interview</b>	93%	91%	89%

Base: total respondents

The real prize is in the development of a relationship with customers. More good things exist when a customer has a high affinity for the LDC than when they dislike it. At Risk customers are more likely to complain than other customers when there are issues. Secure customers are more likely to support the direction of their LDC.

### Loyalty Groups

Customer Loyalty Groups				
Hydro Ottawa	Secure	Favorable	Indifferent	At Risk
2018	32%	15%	46%	7%

Base: total respondents

In the monopoly world of the LDC, loyalty is an attitudinal metric. In private industry, it is a behavioural metric.

### Customer Commitment

Electricity customers' loyalty – ... Is a company that you would like to continue to do business with			
	Hydro Ottawa	National	Ontario
Top 2 Boxes: 'Definitely + Probably' would continue	84%	80%	78%

Base: total respondents

### Customer Advocacy

Electricity customers' loyalty – ... is a company that you would recommend to a friend or colleague			
	Hydro Ottawa	National	Ontario
Top 2 boxes: 'Definitely + Probably' would recommend	79%	76%	70%

Base: total respondents

### UtilityPULSE Report Card®

The purpose of the UtilityPULSE Report Card is to provide electric utilities with a snapshot of performance – on the things customers deem to be important.

Hydro Ottawa's UtilityPULSE Report Card®				
Performance				
	CATEGORY	Hydro Ottawa	National	Ontario
1	<b>Customer Care</b>	<b>A</b>	<b>B+</b>	<b>B+</b>
	Price and Value	B+	B	B
	Customer Service	A	A	B+
2	<b>Company Image</b>	<b>A</b>	<b>B+</b>	<b>B+</b>
	Company Leadership	A	B+	B+
	Corporate Stewardship	A	A	B+
3	<b>Management Operations</b>	<b>A</b>	<b>A</b>	<b>A</b>
	Operational Effectiveness	A	A	A
	Power Quality and Reliability	A+	A	A
<b>OVERALL</b>		<b>A</b>	<b>A</b>	<b>B+</b>

Base: total respondents

### Looking to the future, where to from here?

Technological advances, social disruptions, and other issues will continue for everyone in the LDC industry. Fixing the ills of yesterday are not possible, but instilling confidence that the LDC can handle future customer needs & wants strengthens the customer-supplier relationship. By engaging stakeholders and obtaining their input in undertaking a priority planning process helps to build "prepared minds"—that is, to make sure that the LDC decision makers have a solid understanding of customer priorities, and what the business might need to change or make investments in.

High priority items based on information taken from our UtilityPULSE database include: 'Pro-actively maintaining and upgrading equipment,' 'Reducing response times to outages,' and 'Investing more in the electricity grid to reduce outages and to increase reliability and safety.'

The high scoring attributes demonstrate Hydro Ottawa's operational effectiveness, while the low scoring attributes point to a need for more marketing communications and/or PR types of activities.

### Highest scoring attributes

High scoring attributes			
Top 2 Boxes: 'Strongly + Somewhat agree'	Hydro Ottawa	National	Ontario
Provides consistent, reliable electricity	93%	89%	90%
Makes electricity safety a top priority for employees and contractors	91%	87%	86%
Quickly handles outages and restores power	91%	87%	86%
Has a standard of reliability that meets expectations	92%	88%	88%

Base: total respondents with an opinion

### Lowest scoring attributes

Low scoring attributes			
Top 2 Boxes: 'Strongly + Somewhat agree'	Hydro Ottawa	National	Ontario
Spends money prudently	77%	73%	66%
Operates a cost-effective electricity system	76%	70%	71%
Provides good value for your money	75%	72%	71%
Cost of electricity is reasonable when compared to other utilities	65%	66%	61%

Base: total respondents with an opinion

### Paying for electricity

Fall 2018 data shows dramatic changes in customers' ability to pay. Whether the change is due to price reductions, or anticipated price reductions, or a better economy, is unclear. Ability to pay is highly correlated to satisfaction. The number one billing problem, for 20 years, is "the amount is too high."

Is paying for electricity a worry or a major problem?				
	Not a worry	Sometimes	Often	Depends
Hydro Ottawa	78%	16%	4%	0%
National	71%	18%	7%	0%
Ontario	68%	21%	8%	1%

Base: total respondents

### Numbers at a Glance

	Hydro Ottawa	National	Ontario
<b>Customer Satisfaction: Initial</b>	94%	91%	91%
<b>Customer Satisfaction: Post</b>	93%	91%	89%
<b>Communication Score</b>	80%	--	79%
<b>Overall Satisfaction with the most recent experience</b>	77%	78%	77%
<b>Convenience of Services Score</b>	80%	--	79%
<b>Customer Experience Performance Rating (CEPr)</b>	87%	84%	83%
<b>Customer Centric Engagement Index (CCEI)</b>	84%	81%	80%
<b>Credibility &amp; Trust Index</b>	85%	82%	81%
<b>UtilityPulse Report Card®</b>	A	A	B+

Over the past 5-6 years LDCs have witnessed their customers move from being concerned about costs, to worried about cost, to being upset about costs and being angry about costs – and now returning to what we believe is a concern about costs. From a human nature point-of-view, when people are angry, they tend to look back in time to find someone or something to blame for their predicament. Now that customers have returned to being concerned, they are more apt to be looking forward while putting more focus on identifying and determining how they might handle future issues. The data from our Fall 2018 interviews with over 9,000+ customers shows there is support for making pro-active investments in reliability, outage restoration, outage management, and communications.

We believe, for many in society, from 2008 to mid-2017 survival was the key goal less so in 2018. The outlook for the economy is better; wages are improving and, job openings are more plentiful – therefore putting more focus on the future.

The good news is Hydro Ottawa remains what we call an influential brand company. The safe, reliable distribution of electricity to homes and businesses is a job which makes life better, more interesting and meaningful for consumers and customers. As a company which affects the daily life of people and businesses – an influential brand – it must consistently demonstrate that it is credible, trusted, future-oriented, cares about customers, cares about safety, cares about the environment, is professional, has high standards and is a valued corporate citizen.



The industry is far more complex today than it was 20 years ago when we conducted the 1<sup>st</sup> Annual Customer Satisfaction survey for electric utilities. Data shows that being customer-centric is important for ensuring future success of the LDC. Customers want respect.

We recommend leveraging the results from your 2018 customer satisfaction survey by having meaningful conversations with everyone about your customers' – satisfaction, concerns, wants, etc. LDCs with a constructive employee culture with high levels of employee engagement and empowerment will have an easier time defining a future path forward.

Sid Ridgley  
Simul/UtilityPULSE  
Email: [sridgley@simulcorp.com](mailto:sridgley@simulcorp.com)

November 2018

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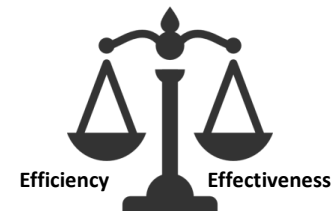
## Satisfaction (pre & post)

As stated multiple times over many years, measuring satisfaction is an important starting point, for the creation of loyal customers. However, it is a misnomer to conclude that highly satisfied customers are also customers with a high affinity or loyalty quotient. One can be satisfied but not necessarily loyal. But it is true to conclude that the LDC (its people) must do the job as expected and required before there can be a positive emotional connection.

We've stated in the past, a focus on satisfaction prompts an organization to continue to evolve in ways which make sense to those who pay the bills. A focus on satisfaction is a focus on effectiveness in the delivery of service to the customer. Satisfied customers who trust their LDC may be more likely to seek advice, i.e. energy efficiency methods and may be more receptive to important messages, i.e. safety, new capital projects, etc.

About ratings/measures:

- Satisfaction is not a program; it is an outcome.
- **Efficiency** is about achieving objectives with the minimum amount of people, time, money and other resources.
- **Effectiveness** ratings are measures keeping the organization and its people more future focused than efficiency ratings

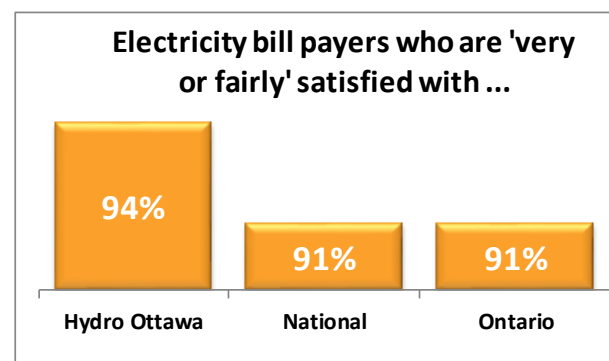


Finding the right balance between efficiency and effectiveness measures is difficult.

Efficiency ratings won't lead to satisfaction, but they can lead to dissatisfaction. Taking 90 seconds to answer the phone will create an agitated customer who, for the most part starts off being dissatisfied with the service – before you've even had a chance to deal with or solve their problem. Answering the phone in 20 seconds but not solving the customer's problem is not going to ameliorate the customer's perception about the transaction.

Customer expectations of their electricity LDC have evolved past the “provide electricity reliably, safely and billed both accurately with fair pricing”. They do expect their LDC to be ethical, forward-thinking, competent and trustworthy.

- **Satisfaction** happens when utility core services meet or exceed customer's needs, wants, or expectations.
- **Loyalty** occurs when a customer makes an emotional connection with their electric utility on a diverse range of expectations beyond core services.



Base: total respondents

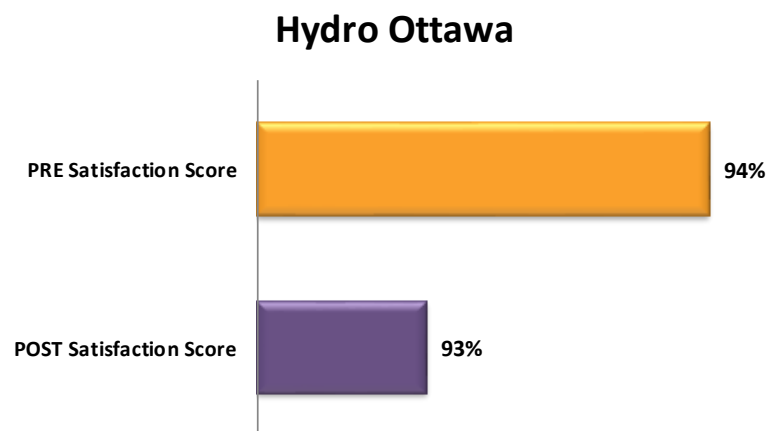
Satisfaction alone does not make a customer loyal; a willingness to commit and advocate for a company along with satisfaction identifies the three basic customer attitudes which underpin loyalty profiles. While satisfaction is

an important component of loyalty, the loyalty definition needs to incorporate more attitudinal and emotive components.

Electricity bill payers who are 'very or fairly' satisfied with...					
	2018	2017	2016	2015	2014
Hydro Ottawa	94%	90%	81%	87%	82%
National	91%	90%	86%	89%	89%
Ontario	91%	85%	81%	86%	83%

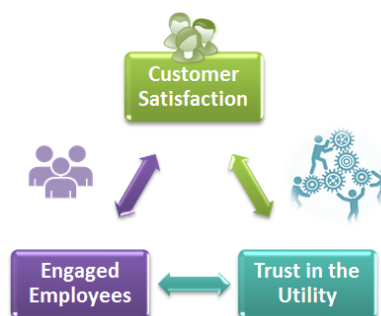
Base: total respondents / (-) not a participant of the survey year

In the Simul/UtilityPULSE Customer Satisfaction survey, the overall satisfaction question is asked both at the beginning (PRE) and the end (POST). Asking the general satisfaction question at the start of the survey avoids bias, and we obtain a spontaneous rating. This allows measurement of customers' overall impressions of the utility before prompting them to think of specific aspects of the relationship. After we have asked about specific aspects of the customer experience, we gain a more *considered* (or conditioned) response.



Base: total respondents

As with any enterprise, Hydro Ottawa has an obligation to satisfy its customers. But the rewards for satisfying customers go far beyond “obligation”. Customers with high levels of satisfaction handle problems far better than customers with low satisfaction. Stronger relationships with customers generate higher levels of involvement and participation. For employees, serving customers who are very satisfied are more enjoyable interactions than with customers who are very dissatisfied. Satisfied and engaged employees who work in an organizational culture which promotes service excellence with empowerment is an important key for completing the job both efficiently and effectively.



SATISFACTION SCORES – Electricity customers' satisfaction			
Top 2 Boxes: 'very + fairly satisfied'	Hydro Ottawa	National	Ontario
PRE: Initial Satisfaction Scores	94%	91%	91%
POST: End of Interview	93%	91%	89%

Base: total respondents

A mutual correlation exists between employee and customer attitudes and loyalty. Employees who are trained well, have the right tools and are focused on successful outcomes for customers contribute greatly to the customers' perception of their utility. There is a direct, irrefutable link between empowered and engaged employees and customer satisfaction – after all -- *your employees are part of your brand and they deliver the promises you make.*

#### Hydro Ottawa

SATISFACTION SCORES – Electricity customers' satisfaction		
Top 2 Boxes: 'very + fairly satisfied'	Residential	Commercial
Satisfaction Scores	94%	92%

Base: total respondents

SATISFACTION SCORES – Electricity customers' satisfaction [kwh usage]			
Top 2 Boxes: 'very + fairly satisfied'	kWh Group 1	kWh Group 2	kWh Group 3
Satisfaction Scores	96%	94%	92%

Base: total respondents

SATISFACTION SCORES – Electricity customers' satisfaction [Income]			
Top 2 Boxes: 'very + fairly satisfied'	<\$30K	\$30 – 75K	\$75K +
Satisfaction Scores	93%	94%	94%

Base: total respondents

## Customer Service

As written in previous years, given the rapidly expanding availability and use of technology finding an appropriate balance between automated self-service and human-interactive service is a huge challenge for all involved in providing service to customers. Customer Service is about the experience your customers have with your utility, your products, and your service – regardless of the channel for used for delivering customer service. The goal is to ensure each of your customers receives high-quality customer service and an experience which meets or exceeds their expectations - on each and every interaction with the LDC.

Given the increased complexity for delivery customer service, we have seen a shift towards a stronger focus on the touch points which create the customer experience.

Most of us want the same things when we are customers: We want to be treated with respect. We want to be listened to. We don't want to be bounced around or ignored or treated as inferior. The customer experience is largely defined by the outcomes generated when customers have a need, want to solve a problem, or simply want answers to issues/concerns they face.

With more technology there will be more shifting of calls away from the call centre. However, the volume of calls which remain are and will be more complex and challenging. We're already witnessing the fact that calls are taking longer to deal with customer issues.



Customers are more concerned about outcomes, and they want their issue, problem or concern to be dealt with in a professional, knowledgeable, and timely manner. Respondents were asked about six aspects of their most recent experience with a representative from Hydro Ottawa.

- Information – the quality of information provided
- Staff attitude – the level of courtesy
- Professionalism – the knowledge of staff
- Delivery – helpfulness of staff
- Timeliness – the length of time it took to get what they needed
- Accessibility – how easy it was to contact someone



Base: total respondents who contacted the utility

Satisfaction with Customer Service			
Top 2 Boxes: 'very + fairly satisfied'	Hydro Ottawa	National	Ontario
The time it took to contact someone	73%	66%	64%
The time it took someone to deal with your problem	70%	72%	65%
The helpfulness of the staff who dealt with you	65%	70%	64%
The knowledge of the staff who dealt with you	62%	70%	64%
The level of courtesy of the staff who dealt with you	74%	78%	70%
The quality of information provided by the staff who dealt with you	65%	73%	61%

Base: total respondents who contacted the utility

Overall satisfaction with most recent experience			
	Hydro Ottawa	National	Ontario
Top 2 Boxes: 'very + fairly satisfied'	77%	78%	77%

Base: total respondents who contacted the utility

Every interaction with a customer is an opportunity to generate higher levels of affinity. It is fool-hardy to view the ratings shown above as ratings for the "call-centre" because every person in Hydro Ottawa interacts with a customer or supports those who do have person-to-person contact with a customer. Empowerment is the backbone of the service recovery principle. In the face of error or problems, acting quickly and decisively, being empowered and turning a dissatisfied customer into a satisfied one tends to have a positive impact.

## Customer Focus – Service Quality

Current measures in the LDC scorecard are: New Residential Services Connected on Time; Scheduled Appointments Met on Time; and, Telephone Calls Answered on Time. These are good examples of efficiency measures as all are time-based. Showing up on time may not create satisfaction; not showing up on time will cause dissatisfaction.



UtilityPULSE findings from working with many LDCs over the past few years indicate it is much harder to get great ratings from customers who may not know much about their LDC's standards for service. Despite this, service quality ratings for Hydro Ottawa are very good and above the Ontario benchmark.

Other dimensions of Service Quality which customers value include:

Customer Service Quality			
Top 2 boxes, 'strongly + somewhat agree'	Hydro Ottawa	National	Ontario
Deals professionally with customers' problems	88%	83%	82%
Customer-focused and treats customers as if they're valued	83%	80%	79%
Is a company that is 'easy to do business with'	85%	82%	82%

Base: total respondents with an opinion

We live in an imperfect world, so mistakes are bound to happen. In the LDC world, not all customer problems are mistakes, some are externally driven. None-the-less customers expect professionalism when interacting with "their" LDC.

## Bill Payers' Problems and Problem Resolution

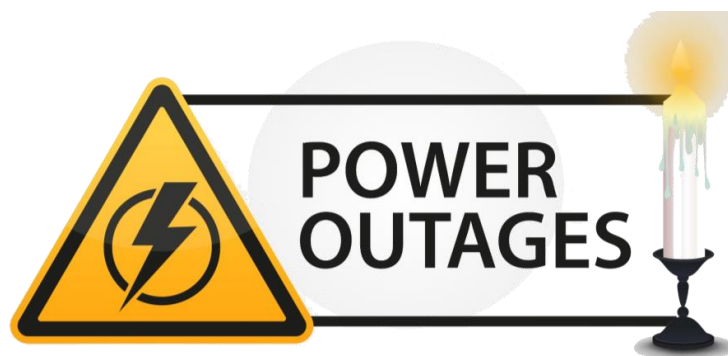
As previously written over multiple years, we call blackouts (outages) and billing problems, the “Killer B’s”, the two issues which are most likely to cause grief to utility customers.

At one time, if the power went off for a few minutes, it was considered annoying and inconvenient. However, with the onset of computers and smart appliances in homes and businesses, a power outage is now unbearable. Customers have little tolerance for an interruption in their flow of electricity.

LDCs have certainly been putting more energy into disseminating information to customers about outages. Many have installed an “outage map” on their website. However, our UP database shows only 13% of customers who accessed their LDC’s website did so to get information about an outage or look at the outage map!

**54% of Hydro Ottawa respondents claimed they experienced an outage problem in the past 12 months.**

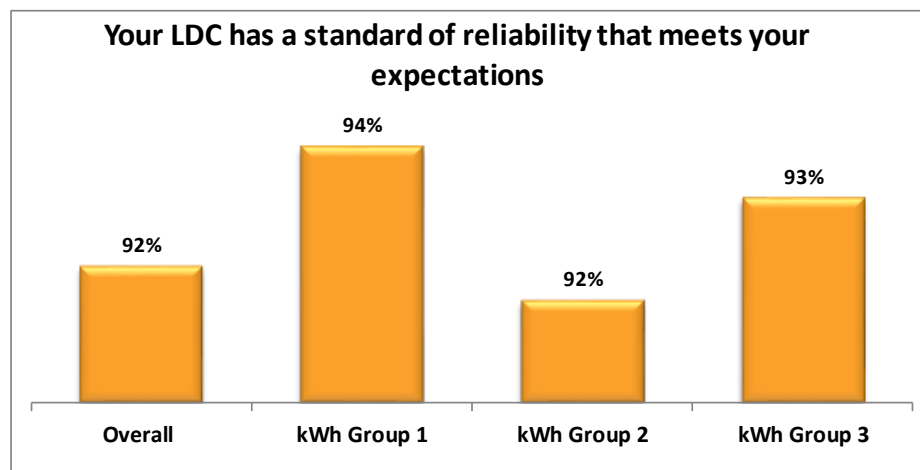
Like it or not, there will be times when the power goes off – and for reasons beyond the control of the LDC.



Percentage of Respondents indicating that they had a Blackout or Outage problem in the last 12 months			
	Hydro Ottawa	National	Ontario
<b>2018</b>	54%	39%	44%
<b>2017</b>	33%	37%	38%
<b>2016</b>	31%	46%	46%
<b>2015</b>	30%	53%	51%
<b>2014</b>	29%	47%	49%

Base: total respondents / (-) not a participant of the survey year

92% of Hydro Ottawa respondents agree ('strongly + somewhat') the utility's standard of reliability is consistent with their expectations.



Base: total respondents



*The spike in outages can be mostly attributed to extreme weather-related events. In 2018, the Ottawa region saw many residents and businesses without power as a wind storm on May 4, 2018 downed trees and damaged hydro poles while two devastating tornadoes and a turbulent storm ripped through the Ottawa corridor on September 21, 2018.*

For nearly every business, the simple act of collecting payments from customers is quite complex. Organizations want to make it easy and convenient for customers to pay, so they offer multiple choices of payment types and channels. However, making it easy for the customer often makes it more complex—and costly—for the business and is certainly not without its problems or flaws.

Percentage of Respondents indicating that they had a Billing problem in the last 12 months			
	Hydro Ottawa	National	Ontario
<b>2018</b>	8%	9%	9%
<b>2017</b>	13%	12%	15%
<b>2016</b>	25%	15%	25%
<b>2015</b>	14%	9%	15%
<b>2014</b>	20%	16%	25%

Base: total respondents / (-) not a participant of the survey year



The impact of poor billing on a utility's business is considerable, in terms of costs incurred handling customer queries and complaints. The quality of billing remains a driving force behind managing customer satisfaction and can help utilities reduce costs associated with customer service. Through reducing the total number of calls to a utility by providing accurate bills which are easily understood, a utility stems the flow of billing-related complaints into its call-centre. However, customers have a different definition than their utility as to what constitutes a billing problem.

Types of Billing Problems	
Hydro Ottawa	
The amount owed was too high	53%
Payment incorrectly recorded	14%
Bill inconsistent/ errors on bill	14%
The bill was difficult to understand	8%
Complaint about rates or charges	6%
Prefer to get bill online	4%
Did not receive bill	4%
The bill arrived late	2%

Base: total respondents with billing problems



22% of Hydro Ottawa respondents with an outage problem did contact the utility;

55% of Hydro Ottawa respondents with a billing problem did contact the utility.

First Contact Resolution (FCR) rates are an important metric for improving call center performance. The first step in improving “FCR” is to survey your front-line customer touch-points and understand what kind of assistance and information customers are seeking in these situations. Once you clearly understand what kinds of interactions are taking place at each of your initial customer touch-points, you can then take steps to improve those interactions.

Percentage of Respondents who contacted their utility and had their problem solved in the last 12 months	
Hydro Ottawa	
Yes	76%
No	20%

Base: total respondents with a problem who contacted their utility



Interestingly when customers do have a problem and contact their LDC, and get the problem solved their satisfaction ratings are very similar to the overall level of satisfaction that exists if not slightly higher, however, failing to deal or resolve a customer's problem causes satisfaction levels to drop.

SATISFACTION SCORES – Electricity customers' satisfaction			
Hydro Ottawa	Overall	Problems Solved	Problems Not Solved
Top 2 Boxes: 'very + fairly satisfied'	94%	95%	74%

Base: total respondents with a problem who contacted their utility

We believe a major challenge for most LDCs is about increasing their knowledge about their customers and how they prefer communications to take place. Most CRM systems seem to be inadequate for providing this information about preferences.

## Communication when there is an Issue – New for 2018

Utilities need to know the response they are seeking from customers when planning their communications and outreach. Sending inserts with monthly bills which provide information to a customer is passive and not very effective. Although your customer audience is captive, a poorly targeted message is often ignored. Posting information on a website—unless a customer is actively searching for it—will likely not be found. Email blasts and social media campaigns will reach customers but may not necessarily lead to action. Such messages are typically read when in transit or multitasking, making them an afterthought. So, it often takes several pushes for these messages to resonate before action is taken. Successful marketing and messaging is about keeping communications simple, consistent, and continually reinforced.

### **Communication channels preferred by customers to receive notice about Billing Issue**

Billing issues have long been a major cause of customer inquiry and complaint. Not only are bills a key part of an LDC's revenue management processes, but they're also an essential element and touchpoint in their relationship with their customers. For many customers, it is one of the very few touchpoints they have with their LDC. Because of its nature, the bill is usually viewed by customers as a wholly negative communication. Therefore, when problems do occur, and the LDC must initiate contact with their customer, it would be beneficial to the process if customers were contacted via channels they most prefer.

Hydro Ottawa's customers' preferred or primary method for Hydro Ottawa to contact them about billing issues are as follows:

Preferred method of communication to receive notice of a billing issue		
	Ontario LDCs	Hydro Ottawa
Telephone	56%	44%
Voice Mail	2%	2%
Text	7%	7%
Email	34%	46%
Don't know	1%	1%









Base: An aggregate of respondents from 2018 participating LDCs / total respondents from the local utility

Effective communication is essential to provide good customer service, improve efficiency and reduce costs. LDCs must maximize the effectiveness of their communications and improve customer interactions consistently across some media channels and customer touch points.

### Communication during Unplanned Outages

In times of emergency, be they extreme weather events or major equipment failures that cause blackouts and unplanned outages, customer communication can help customers understand what to expect next and when disrupted electricity service might be restored. Early and effective communication helps increase confidence in and credibility of the electricity service provider.

Respondents were asked which communication channel they most preferred Hydro Ottawa to use during an unplanned outage.

Method of communication Customers prefer their LDC uses during an UNPLANNED OUTAGE							
Recorded Telephone Message	Email Notice	Posted on the Website	Social Media	Local Radio	Local TV	Text Message	Alert on APP
							
22%	28%	6%	6%	7%	2%	22%	3%

Base: total respondents

### Communication about general news or changes in the industry

While there are many ways to communicate, information and messaging is most effective when delivered through channels preferred by customers. Whether it's text, email, or phone call, it's crucial to recognize that to make communications more effective, the LDC's messaging should be simple, clear, fact-based, and consistent.

Respondents were asked which communication channel they most preferred Hydro Ottawa to use to communicate general news or changes in the industry.

Method of communication Customers prefer their LDC uses about general news		
	Ontario LDCs	Hydro Ottawa
<b>Recorded telephone message</b>	22%	13%
<b>Email notice</b>	40%	45%
<b>Posted on the utility's website</b>	7%	11%
<b>Social media</b>	6%	8%
<b>Local radio</b>	5%	6%
<b>Local TV</b>	5%	6%
<b>Text message</b>	9%	7%
<b>Alert on APP</b>	2%	2%

Base: total respondents

Providing communication channels that are effective and meet customers' needs is key to improving the customer experience. To do this, Hydro Ottawa must understand how customers communicate with you, and how they would like Hydro Ottawa to communicate with them in the future. Knowing this will allow Hydro Ottawa to: allocate resources where they are most needed; tailor services to meet customers' needs; and, identify where improvements can be made.

However, while most customers appear to have capacity and willingness to use digital channels, there are also customers who do not access digital platforms for a variety of reasons, such as a lack of ability or resources, or due to a preference for other channels. Hydro Ottawa will need to consider how these customers can be supported and encouraged to use digital services in the future.

# Communication and Services Measurement

Electric utilities across Canada are increasingly seeing the need to invest in aging infrastructure, new technologies, regulatory requirements, and a skilled workforce. They are addressing these needs to uphold their public service duty, all the while keeping in mind the need to communicate with their customers. Part of communication is the requirement of providing information and/or education to the public to raise the level of understanding surrounding an issue or topic that may be of practical concern to residents.

Consumer information is meant to attune consumers to certain problems [i.e., outage problems, etc.], create awareness and educate [i.e. electricity safety, etc.] or even guide (influence) their behaviour [i.e., energy conservation, etc.].

Customers, who are also consumers, have additional needs for information and education. Survey respondents, who are bill payers, were asked about their level of satisfaction with the information provided by Hydro Ottawa on the following:



Satisfaction with information provided		
Top 2 Boxes: 'very + fairly satisfied'	Ontario LDCs	Hydro Ottawa
The amount of information available to you about energy conservation	82%	83%
The quality of information available when outages occur	73%	81%
The electricity safety education provided to the public	74%	70%
The timeliness and relevance of information for things such as planned outages, construction activity, tree trimming.	78%	80%

Base: An aggregate of respondents from 2018 participating LDCs / total respondents from the local utility

Communication Score		
	Ontario LDCs	Hydro Ottawa
Communication Score	79%	80%

Base: An aggregate of respondents from 2018 participating LDCs / total respondents from the local utility



Based on customer responses, Hydro Ottawa has achieved a score of 80% for communications.

## Convenience of Services Score

Rising customer expectations and demands means customers expect to be able to contact you 24 hours a day, seven days a week using various communication avenues, i.e. telephone, your website and/or even social media. Customers expect flexible and more personalized services. Regardless of the day of the week or time of day, when a customer has a problem they want to deal with it and have it resolved – when it is convenient for them.

Access to services		
Top 2 Boxes: 'very + somewhat satisfied'	Ontario LDCs	Hydro Ottawa
The availability of call-centre staff Monday to Friday	76%	82%
The 24/7 availability of system operators to respond to outages	77%	80%
The online self-serve options for managing your account	63%	69%
The online self-serve options for request services	56%	57%

Base: An aggregate of respondents from 2018 participating LDCs / total respondents from the local utility |  
Hours: Ontario LDCs 8:30 am to 4:30 pm, Hydro Ottawa 8:00 am to 8:00 pm and Saturdays 9:00 am to 3:00 pm

When customers have a high level of satisfaction with access to services, it is much easier for LDCs to forge a new kind of relationship with its customers which, in turn, helps all parties successfully deal with the issues and opportunities of the new energy world.

Digital exclusion – some people may not have access to the internet at home, and that may mean they would not have access to information and services online. Data from the UtilityPULSE database shows about 17% of survey respondents in 2017 and 14% of survey respondents in 2018 do not have access to the internet. Survey respondents who earn less than \$30,000 per year indicated that 44% in 2017 and 37% in 2018 didn't have access to the internet. It is true these access numbers vary based on the affluence of the community.

Also, there is an age bias towards the use of technology.

Hydro Ottawa needs to continue to recognize this and ensure that customers may access services via alternate formats where necessary and feasible.

Convenience of Services Score		
	Ontario LDCs	Hydro Ottawa
Convenience of Services Score	79%	80%

Base: An aggregate of respondents from 2018 participating LDCs / total respondents from the local utility

Providing customers with clear, easy to access services and information which is easy to understand has a significant impact on the customer experience.



*Convenience of  
Services Score*

Based on customer responses, Hydro Ottawa has rated 80% for Convenience of Services.

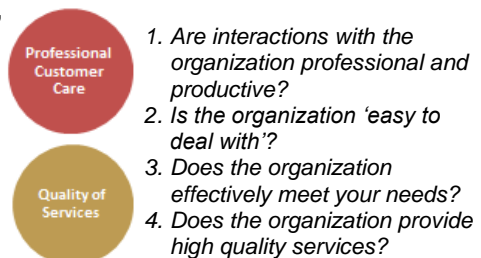
# Customer Experience Performance rating (CEPr)

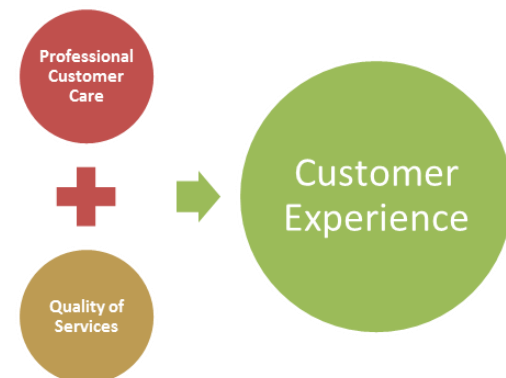
The CEPr score is an effectiveness rating and is affected by many dimensions of service. Every touch point with customers on the phone, website or in-person influences what customers think and feel about the organization. While an excellent transaction today creates a positive experience today, the perception created is future transactions will be excellent too. Of course, a negative transaction creates the perception future transactions will be negative.

When the customer experience is strong, the opportunity to build loyalty is great. When the experience is a negative one, customers often conclude the organization doesn't care. When a customer believes the organization doesn't care, outrage and anger are a very real possibility.

Understanding your customer's expectations for service is the first step in providing an amazing customer experience. It is essential customer care call centers develop a comprehensive understanding of what

*At the heart of the CEPr are 4 central questions:*

- 
1. Are interactions with the organization professional and productive?
  2. Is the organization 'easy to deal with'?
  3. Does the organization effectively meet your needs?
  4. Does the organization provide high quality services?



customers expect from them, whether or not their needs are being met and how they can improve their service to meet their expectations.

Some of the factors which contribute to the overall customer experience:

- Delivering accessible and consistent customer service (multi-channel)
- Understanding customer expectations
- Maintaining timely resolution timelines
- Providing effective communication(s) according to customer needs
- Demonstrating responsiveness
- Speeding up problem resolution
- Conducting problem analysis to prevent recurring issues
- Easy to do business with
- Seeking customer feedback and following through on recommendations



Customer Experience Performance rating (CEPr)			
	Hydro Ottawa	National	Ontario
<b>CEPr: all respondents</b>	87%	84%	83%

Base: total respondents

The CEPr for Hydro Ottawa is 87%. This rating would suggest that a very large majority of customers have a belief they will have a good to excellent experience dealing with Hydro Ottawa professionals.

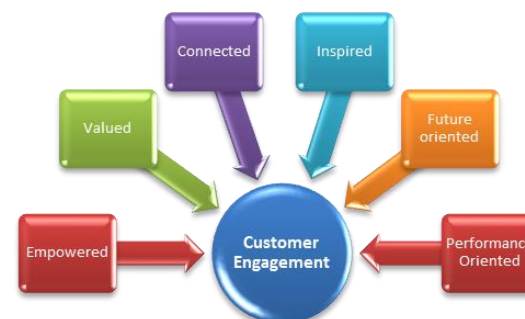
# Customer Centric Engagement Index (CCEI)

Customer engagement and customer satisfaction are very different measures. We believe generating high scores in customer engagement is more difficult than customer satisfaction. For example, a customer can be highly satisfied when the LDC reliability delivers electricity, bills the customer properly and quickly deals with outages. Essentially when the LDC does what it promises to do, then satisfaction follows.

Customer engagement is about connecting with customers in ways to demonstrate the LDC has heard the customer, understands the customer's needs, wants, desires and issues. When the LDC does demonstrate hearing and understanding, the result is higher levels of emotional connection, i.e., feelings that the people at the LDC care, respect and value their customers or are prepared to go-out-of-their-way (if necessary) to help.

Customer engagement is often thought of as a series of activities involving the customer such as conducting a survey, holding town hall type meetings, focus groups, etc. One could call these types of activities as the behaviour side of engagement. However, there is an emotional side to engagement.

UtilityPULSE has identified the six key dimensions of what defines customer engagement. They are: empowered, valued, connected,



inspired, future-oriented and performance oriented. Customer-centric engagement is a measure of “goodwill” towards the utility. The UP database does show Secure customers believe they are more highly engaged with their LDC than customers who are At Risk.

This survey also provides you with an emotional look at engagement. The UtilityPULSE CCEI is a gauge of the amount of goodwill which has been generated. High numbers in CCEI suggest there is a high level of goodwill amongst your customers – this is important for two reasons. First, when something goes awry for the utility, goodwill helps the utility to be resilient. Second, goodwill encourages active participation in requests to participate in engagement activities or program offerings from the utility.

The CCEI is a metric designed to get a more in-depth look at the attachment a customer has with your LDC and its brand. High levels of customer engagement (emotional) correlate strongly to high levels of Secure and Favourable customer numbers.

***Engagement is how customers think, feel and act***

***towards the organization.*** As such, ensuring customers respond in a positive way requires they are rationally satisfied with the services provided AND emotionally connected to your LDC and its brand. The more frequently



and consistently an organization's products and services can connect with a customer, especially on an emotional level, the stronger and deeper the customer becomes engaged with the organization.

Utility Customer Centric Engagement Index (CCEI)			
	Hydro Ottawa	National	Ontario
CCEI	84%	81%	80%

Base: total respondents

Customers who are less engaged, as measured by the CCEI are more likely to let costs and/or price impact their perceptions of their LDC. Customers who are highly engaged are more inclined to look past costs and money issues and use a rational approach to make values-based decisions. Highly engaged customers have a stronger emotional connection to your utility. It's this emotional connection which will drive commitment, loyalty, and advocacy.

Using the measures of Satisfaction and Engagement the LDCs relationship with its customers would fall into one of four quadrants: Q1- low satisfaction/low engagement; Q2- high satisfaction/low engagement; Q3- low satisfaction/high engagement and Q4- high satisfaction/high engagement. Most LDCs would agree to have customers fall into the Q1 quadrant isn't good and having customers fall into Q4 is ideal.

When LDCs have candid conversations with customers and employees about their joint and different needs & perspectives the better, the LDC can be for creating an excellent place to do business with and to work.

# UtilityPULSE Report Card®

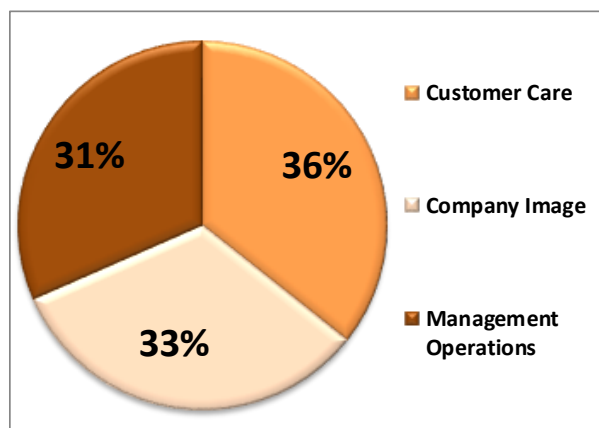
Simul's UtilityPULSE Report Card® is based on tens of thousands of customer interviews gathered over eighteen years. The purpose of the UtilityPULSE Report Card® is to provide electric utilities with a snapshot of performance – on the things customers deem to be important. Research has identified over 20 attributes, sorted into six topic categories (we call these drivers), which customers have used to describe their utility when they have been satisfied or very satisfied with their utility. These attributes form the nucleus, or base, from which “scores” are assigned. Customer satisfaction and loyalty also play a major role in the calculations.

There are two main dimensions of the UtilityPULSE Report Card® the first is customer psyche and the other is customer perceptions about how the utility executes its business.

## **The Psyche of Customers**

Every utility has virtually the same responsibility – provide safe and reliable electricity – yet not all customers are the same. The following chart shows the weight or significance of each category to the customer when forming their overall impression of the utility. Three major themes, each with two major categories make up the UtilityPULSE Report Card®. In effect, the Report Card provides feedback about your customers' perception of the importance of each category and driver – as it relates to the benchmark.

## UtilityPULSE Report Card® for Hydro Ottawa



Base: total respondents

The UtilityPULSE Report Card® also provides customer perceptions about how your utility executes or performs its responsibilities. This is different, very different, from what a customer might say about a major concern or worry they have about electricity. As our survey has shown since its inception, the primary suggestion for improvement is “reduce prices”, which is also a major concern which your customers have about municipal taxes, gas for the vehicle, and other utilities.

Readers of this report should note that the categories and drivers are interdependent. Which means, for example, failure to provide high levels of power quality and reliability will have a negative impact on customer perceptions as it relates to customer service. Customer care, when it doesn't meet customer expectations has a negative impact on Company Image, etc.

Defining the categories and major drivers:

**Category: Customer Care**

**Drivers: Price and Value; Customer Service**

Just because everyone likes good customer care, that in and by itself, is not a reason to provide it – though it may be important to do so. In highly competitive industries good customer service may be a differentiating factor. The case for electric utilities is simple, high levels of customer care result in less work (hence cost) of responding to customer inquiries and higher levels of acceptance of the utility's actions.

***Price and Value:***

Customers have to purchase electricity because life and lifestyle depend on it. This driver measures customer perceptions as to whether the total costs of electricity represent good value and whether the utility is seen as working in the best interests of its customers as it relates to keeping costs affordable.

***Customer Service:***

Customers do have needs, and every now and again have to interface with their utility. How the utility handles various customers' requests, and concerns are what this driver is all about. Promptly answering inquiries, providing sound information, keeping customers informed and doing so in a professional manner are the major components of this driver.

## **Category: Company Image**

### **Drivers: Company Leadership; Corporate Stewardship**

Utilities have an image even if they do not undertake any activities to try to build it. A company's image is both a simple and complex concept. It is simple because companies do create images which are easily described and recognized by their target customers. It is complex because it takes many discrete elements to create an image which includes, but is not limited to: advertising, marketing communications, publicity, service offering, and pricing.

An electric utility trying to manage its image has one more challenge to deal with, and that is the electric industry itself. There are so many players, residential customers (in particular) don't know who does what or who is responsible for what. So, when there are political or regulatory announcements, the local utility is often swept up into the collective reaction of the population.

#### ***Company Leadership***

This driver is comprised of customer perceptions as it relates to industry leadership, keeping promises and being a respected company in the community.

#### ***Corporate Stewardship***

Customers rely on electricity and want to know their utility is both a trusted and credible organization which is well managed, accountable, socially responsible and has its financial house in order.

**Category: Management Operations**

**Drivers: Operational Effectiveness; Power Quality and Reliability**

Electrical power is the primary product which utilities provide their customers and, they have very high expectations the power will be there when they need it. Customers have little tolerance for outages. The reality is, every utility must get this part right...no excuses. It is the utility's core business. This category and its drivers are clearly the most important for fulfilling the rational needs of a utility's customers.

***Operational Effectiveness***

This driver measures customers' perceptions as they relate to ensuring their utility runs smoothly. Attributes such as accurate billing and meter reading, completing service work in a professional and timely manner and maintaining equipment in good repair are deemed as important to customers.

***Power Quality and Reliability***

Power outages are a fact of life – and, customers know it. They expect their utility to provide consistent, reliable electricity, handle outages and restore power quickly and make using electricity safely an important priority.

Hydro Ottawa's UtilityPULSE Report Card®				
Performance				
	CATEGORY	Hydro Ottawa	National	Ontario
1	<b>Customer Care</b>	<b>A</b>	<b>B+</b>	<b>B+</b>
	Price and Value	B+	B	B
	Customer Service	A	A	B+
2	<b>Company Image</b>	<b>A</b>	<b>B+</b>	<b>B+</b>
	Company Leadership	A	B+	B+
	Corporate Stewardship	A	A	B+
3	<b>Management Operations</b>	<b>A</b>	<b>A</b>	<b>A</b>
	Operational Effectiveness	A	A	A
	Power Quality and Reliability	A+	A	A
<b>OVERALL</b>		<b>A</b>	<b>A</b>	<b>B+</b>

Base: total respondents

Ontario LDCs get a "C" rating for 'cost of electricity is reasonable when compared to other utilities such as gas, cable, and telephone' C+ rating for 'spends money prudently'.

As the UtilityPULSE Report Card® shows, the total customer experience with an electric utility is defined as more than “keeping the lights on”. Customers deal with your utility every day for a variety of reasons, most likely because they need someone to help them solve a problem, answer a question or take their order for service. All your employees, from customer service representatives to linemen, leave a lasting impression on the customers they interact with. In effect, there are many moments of truth. Moments of truth are every customer touch point a utility has with their customers. Therefore, managing these moments of truth creates higher levels of Secure customers while reducing the number of At Risk customers which exist.

It's the small things done consistently that matter: Things like greeting every customer, whether on the phone or in person, in a friendly and helpful manner. Things like listening to the customer's needs, providing solutions to their problems and showing appreciation to the customer for their business.

Utilities now recognize customer communications as a valuable aspect of their business. The better a utility communicates with customers in a manner which speaks to them; the more satisfied they are with their overall service. “Sending out information” is not the same as having a “conversation” with a customer. We believe it is increasingly important to channel your communications to the various customer segments which exist.

Obviously, employees – in every area – play a critical role in customer service success. Consequently, how they feel about their job responsibilities and role in the company will be communicated indirectly through the level of service which they provide customers with whom they interact. The reality is engaged employees are the key to excellent customer care.

Our survey work with employees shows there are many elements of an organizational culture to support the people model needed to achieve high levels of engagement.

Our research has identified 6 main drivers which promote and support people giving their best:

**People Model**



- Empowered
- Valued
- Connected
- Inspired
- Growing
- Performance oriented

There are 12 key processes from “attracting employees” to “saying goodbye to employees” are part of your people model to get the best performance from every employee.

We believe taking the time to understand the difference between employee satisfaction and organizational culture is worthwhile from a resourcing perspective and a people development perspective. Every organization has a culture – we believe it is a leadership imperative to install and maintain a culture which ensures you attain the achievements and successes of your utility’s many investments in people, technology and equipment. It is true, organization culture affects everyone, and everyone affects organization culture.

# The Loyalty Factor

If a customer is satisfied, it doesn't necessarily mean he or she is loyal. Satisfaction is about fulfilling promises/expectations; loyalty goes way beyond that by creating exceptional experiences and long-lasting relationships. There is a reason why marketing campaigns strive to build brand loyalty, not brand satisfaction. Measuring customer loyalty in an industry where many customers don't have a choice of providers doesn't make sense. Or does it?

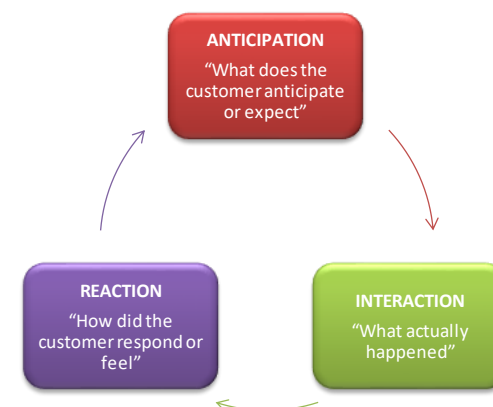
The answer depends on how you define "customer loyalty."

Private industry often equates customer loyalty with basic customer retention. If a customer continues to do business with a company, the customer is, by definition, considered to be loyal. If this definition were applied to many companies in the utility industry, all customers would automatically be considered loyal. As such, measuring customer loyalty would appear to be unnecessary.

Natural monopolies (like LDCs) are not really different in what they should measure except that trying to determine which customers are "loyal" or "at risk" is not about their future behaviour but more about their "attitudinal" loyalty (are they advocates?).



Customer Service, when done well, promotes satisfaction which builds the foundation towards loyalty. Whether a customer is loyal and/or satisfied will be determined by three realities: ANTICIPATION – what your customer anticipates or expects; INTERACTION – what actually happened with/to the customer; and REACTION – how did the customer respond and how did it ultimately make the customer feel.



Perhaps a better or more relevant way for utilities to approach the definition of customer loyalty is to further expand how they think about loyalty. Consider the following definition: Customer loyalty is an emotional disposition on the part of the customer which affects the way(s) in which the customer (consistently) interacts, responds or reacts towards the company – its products & services and its brand.

So, what does it mean to respond favourably to a company? At a basic level, this can mean choosing to remain a customer. As previously mentioned, however, this is essentially a non-issue for many utility companies. It then becomes necessary to think beyond just customer retention. One needs to consider other ways in which customers can respond favourably toward a company.

**Some Tips to build loyalty:**

- ✓ Solve problems quickly
- ✓ Treat customers right
- ✓ Listen to complaints
- ✓ Be personal; create a great experience
- ✓ Friendly customer service
- ✓ Accessible information or help
- ✓ Good reputation
- ✓ Demonstrate you care

Other favourable responses or behaviours can be classified into one of three categories that reflect the concept of customer loyalty:

- Participation
- Compliance or Influence
- Advocacy

Specific examples of potential participatory behaviour in the electric utility industry include:

- Signing up for programs which help the customer reduce or manage their energy consumption
- Using the utility as a consultant when selecting energy products and services from a third party
- Participating in pilot programs or research studies.

Specific examples of potential compliance or influence behaviours utility customers might exhibit include:

- Seeking the utility's advice or expertise on an energy-related issue
- Voluntarily cutting back on electricity usage if the utility advised the customer to do so
- Accepting the utility's energy advice or referrals to energy contractors or equipment
- Being influenced by the utility's opinion regarding energy- management advice, equipment, or technologies
- Providing personal information which enables the utility to better serve the customer
- Paying bills online.

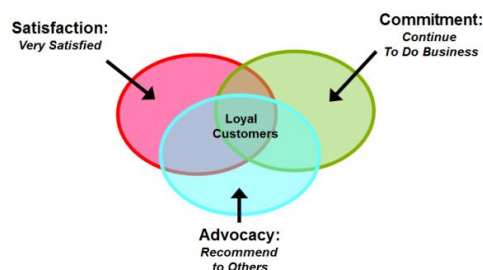
Creating customer advocates can be especially important for a company in a regulated industry. In the absence of customer advocates, or worse, in a situation where customers speak unfavourably about a company or actively work to support issues that are counter to those the company supports, companies can suffer a variety of negative consequences like increased business costs, lawsuits, fines, and construction delays. For an electric utility, specific examples of potential advocacy behaviour include:

- Supporting the utility's positions or actions on energy-related public issues, including the environment
- Supporting the utility's position on the location and construction of facilities
- Providing testimonials about positive experiences with the utility.

In sum, loyal behaviour in the utility industry may not be as evident as it is in a more competitive environment. Measuring customer loyalty in a generally non-competitive industry requires one to think about loyalty in non-traditional ways. Customer loyalty is an intangible asset which has positive consequences or outcomes associated with it no matter what the industry. Properly measuring loyalty among utility customers requires thoughtful probing to thoroughly identify the range of participation, compliance, and advocacy behaviours that will ultimately benefit the company in meaningful ways and foster happier and more loyal customers.

**Loyalty is driven primarily by a company's interaction with its customers and how well it delivers on their wants and needs.**

### Customer Loyalty Model



**Loyalty is based on likelihood to:**

- **Satisfaction:** overall satisfaction
- **Commitment:** continue as a customer
- **Advocacy:** willingness to recommend

The UtilityPULSE Customer Loyalty Performance Score segments customers into four groups: **Secure** – the most loyal - **Still Favorable**, **Indifferent**, and **At risk**.

**Secure** customers are “very satisfied” overall with their local electricity utility. They have a very high emotional connection with their utility and definitely would recommend their local utility.

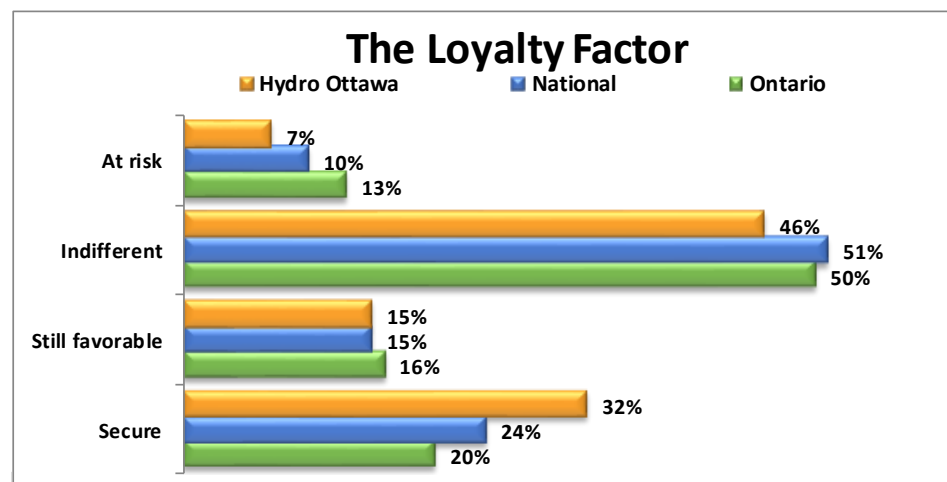
**Still favorable** customers are “very satisfied” overall, “definitely” or “probably” would recommend their local utility and not switch if they could.

**Indifferent** customers are less satisfied overall than secure and still-favorable customers and less inclined to recommend their local utility or say they would not switch.

**At risk** customers, who are “very dissatisfied” with their electric utility, “definitely” would switch and “definitely” would not recommend it.

Customer Loyalty Groups				
	Secure	Favorable	Indifferent	At Risk
Hydro Ottawa				
2018	32%	15%	46%	7%
2017	20%	13%	54%	12%
2016	15%	10%	56%	19%
2015	15%	8%	63%	14%
2014	15%	8%	61%	16%

Base: total respondents / (-) not a participant of the survey year

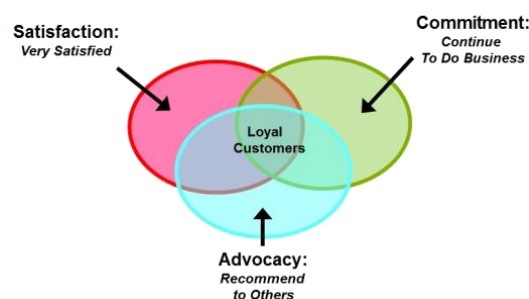


Customer Loyalty Groups				
	Secure	Favorable	Indifferent	At Risk
Ontario				
2018	20%	16%	50%	13%
2017	19%	13%	52%	17%
2016	17%	13%	54%	16%
2015	17%	11%	61%	11%
2014	17%	10%	57%	17%
National				
2018	24%	15%	51%	10%
2017	21%	16%	50%	13%
2016	23%	12%	54%	11%
2015	18%	11%	61%	10%
2014	20%	11%	56%	13%

Base: total respondents

# Customer commitment

## Customer Loyalty Model



Customer loyalty is a term which can be used to embrace a range of customer attitudes and behaviours. One of the metrics used to gauge loyalty is the measure of **retention**, or intention to buy again; this loyalty attitude is termed **commitment**. For LDCs commitment is not about behaviour it is about attitude, i.e., do they want to remain your customer.

Customer commitment is a very important driver of customer loyalty in the electricity service industry. In a similar way to trust, commitment is considered an important ingredient in successful relationships. In simpler terms, commitment refers to the motivation to continue to do business with and maintain a relationship with a business partner, i.e. the local utility.

For electric utilities, this measurement is about identifying the number of customers who feel they “want to” vs. “have to” do business with you. Potential benefits of commitment may include word of mouth communications - an important aspect of attitudinal loyalty. Committed customers have been known to demonstrate a number of beneficial behaviours, for example, committed customers tend to:

- Come to you. One of the key benefits of establishing a good level of customer loyalty is customers will come to you when they need a product or service

- Validate information received from 3<sup>rd</sup> parties with information and expertise that you have
- Try new products/initiatives
- Perhaps they will even trust you when recommendations are made
- Be more price tolerant
- More receptivity of utility viewpoints on various issues
- More tolerance of errors or issues which inevitably take a swipe at the utility
- Stronger levels of perception regarding how the utility is managed.

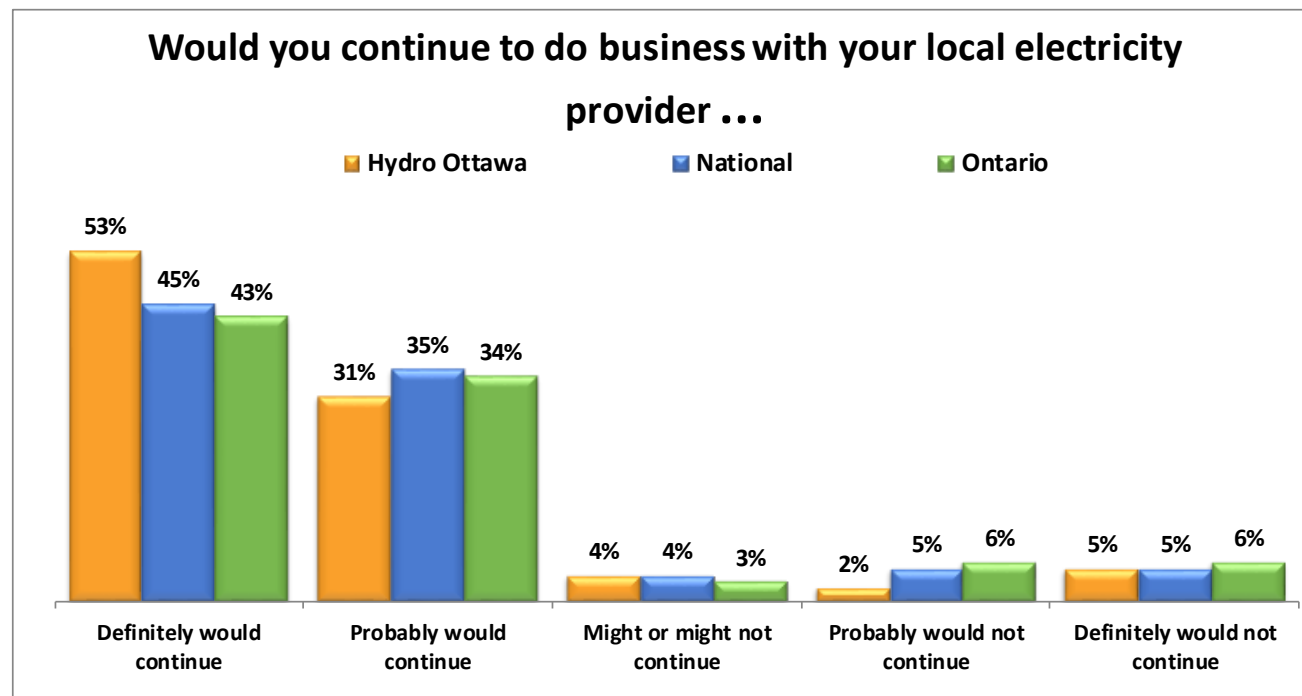
Though customers cannot physically leave you, they can emotionally leave you, and when they do, it becomes an extreme challenge to garner their participation or support for utility initiatives.

Electricity customers' loyalty – ... Is a company that you would like to continue to do business with			
	Hydro Ottawa	National	Ontario
<b>Top 2 Boxes: 'Definitely + Probably' would continue</b>	84%	80%	78%
<b>Definitely would continue</b>	53%	45%	43%
<b>Probably would continue</b>	31%	35%	34%
<b>Might or might not continue</b>	4%	4%	3%
<b>Probably would not continue</b>	2%	5%	6%
<b>Definitely would not continue</b>	5%	5%	6%

Base: total respondents

Electricity customers' loyalty – ... Is a company that you would like to continue to do business with					
Hydro Ottawa	2018	2017	2016	2015	2014
<b>Top 2 boxes:</b> <b>'Definitely + Probably' would continue</b>	84%	79%	70%	73%	68%

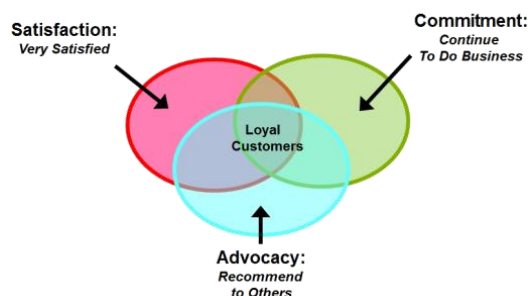
Base: total respondents / (-) not a participant of the survey year



Base: total respondents

## Word of mouth

### Customer Loyalty Model



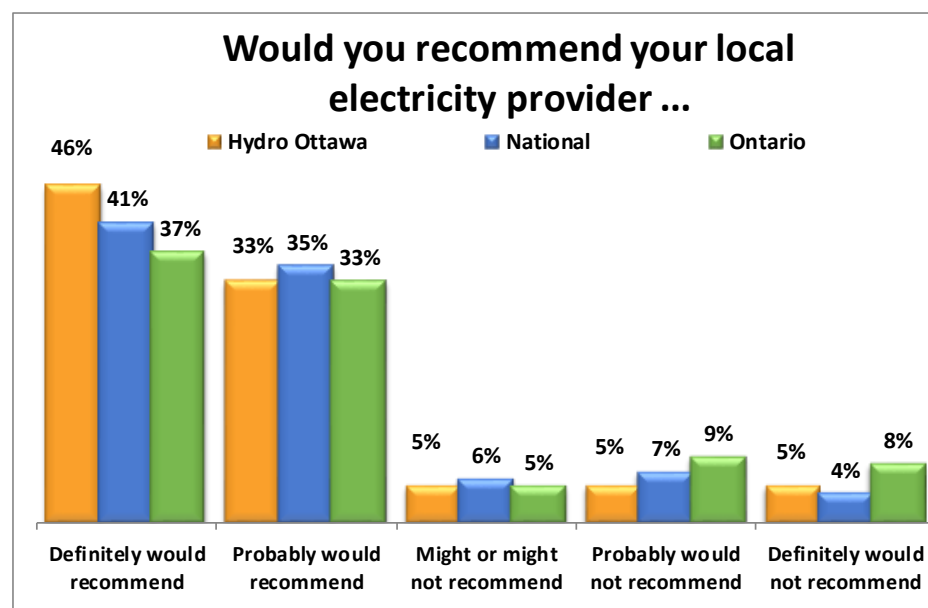
Advocacy is one of the metrics measured in determining customer loyalty. Essentially, companies believe a loyal customer is one who is spreading the value of the business to others, leading new people to the business and helping the company grow. Customer referrals, endorsements and spreading the word are extremely important forms of customer behaviour. For LDCs this is about generating positive referants about the LDC



as a relevant and valuable enterprise.

When customers are loyal to a company, product or service, they not only are more likely to purchase from the company again, but they are more likely to recommend it to others – to openly share their positive feelings and experiences with others. In today's world, thanks to the Internet, they can tell and influence millions of people. The same holds true, if not more, when customers are disloyal. Disgruntled customers could share their negative experiences with an ever-widening audience, jeopardizing a company's reputation and resulting in fewer engaged customers and/or customers who are Favourable or Secure. Secure customers, typically are advocates and they are deeply connected and brand-involved.

Would you tell me if you agree or disagree with the following statement? Hydro Ottawa is a company that you would recommend to a friend or colleague ...



Base: total respondents

Word of mouth communication is a very powerful form of communication and influence. When customers are speaking to other customers (or their peers) it is more credible, goes through less perceptual filters and can enhance the view of services or products better than marketing communication.

*There are two forms of word of mouth which utilities need to understand. The first is Experience-based word of mouth which is the most common and most powerful form. It results from a customer's direct experience with the utility or the re-statement of a direct experience from a trusted source.*

*The second is Relay-based word of mouth. This is when customers pass along important messages to others based on what they have learned through the more traditional forms of communications. For example, if the utility was communicating an offer for "free LED lights" chances are high the offer will be "relayed" to others through word of mouth.*

*For an electric utility, specific examples of potential positive advocacy behaviour include:*

- *Recommending other customers specifically locate in the geographic area which is serviced by that utility*
- *Supporting the utility's positions or actions on energy-related public issues, including the environment*
- *Supporting the utility's position on the location and construction of facilities*
- *Providing testimonials about positive experiences with the utility*

Electricity customers' loyalty – ... is a company that you would recommend to a friend or colleague			
	Hydro Ottawa	National	Ontario
<b>Top 2 boxes: 'Definitely + Probably' would recommend</b>	79%	76%	70%
<b>Definitely would recommend</b>	46%	41%	37%
<b>Probably would recommend</b>	33%	35%	33%
<b>Might or might not recommend</b>	5%	6%	5%
<b>Probably would not recommend</b>	5%	7%	9%
<b>Definitely would not recommend</b>	5%	4%	8%

Base: total respondents

Electricity customers' loyalty – is a company that you would recommend to a friend or colleague					
Hydro Ottawa	2018	2017	2016	2015	2014
<b>Top 2 boxes: 'Definitely + Probably' would recommend</b>	79%	68%	61%	68%	62%

Base: total respondents / (-) not a participant of the survey year

Our survey research as well as theory backs up the fact that if your customers are willing to endorse you and put their reputation on the line to recommend you, they also trust you and are satisfied with the service you are providing.

## Corporate image

Although reputation is an intangible concept, a strong corporate image makes it easier to capture the attention of more customers – more often. Also, to be seen as an independent organization thereby making it easier to introduce new ideas. Employees appreciate a strong corporate image.

Attributes measured in the annual UtilityPULSE survey which are strongly linked to a utility's image include:

Marketing – Communications			
	Hydro Ottawa	National	Ontario
<b>Topics which require more pro-active communication</b>			
<b>Cost of electricity is reasonable when compared to other utilities</b>	65%	66%	61%
<b>Provides good value for money</b>	75%	72%	71%
<b>Operates a cost-effective electricity distribution system</b>	76%	70%	71%
<b>Provides information to help customers reduce their costs</b>	82%	78%	78%
<b>Adapts well to changes in customer expectations</b>	75%	73%	72%
<b>Topics that your utility scores very well on</b>			
<b>Delivers on its service commitments</b>	88%	86%	86%
<b>Electricity safety is a top priority</b>	91%	87%	86%
<b>Quickly handles outages and restores power</b>	91%	87%	86%
<b>Standard of reliability delivering electricity that meets expectations</b>	92%	88%	88%
<b>Provides consistent, reliable energy</b>	93%	89%	90%

Base: total respondents with an opinion

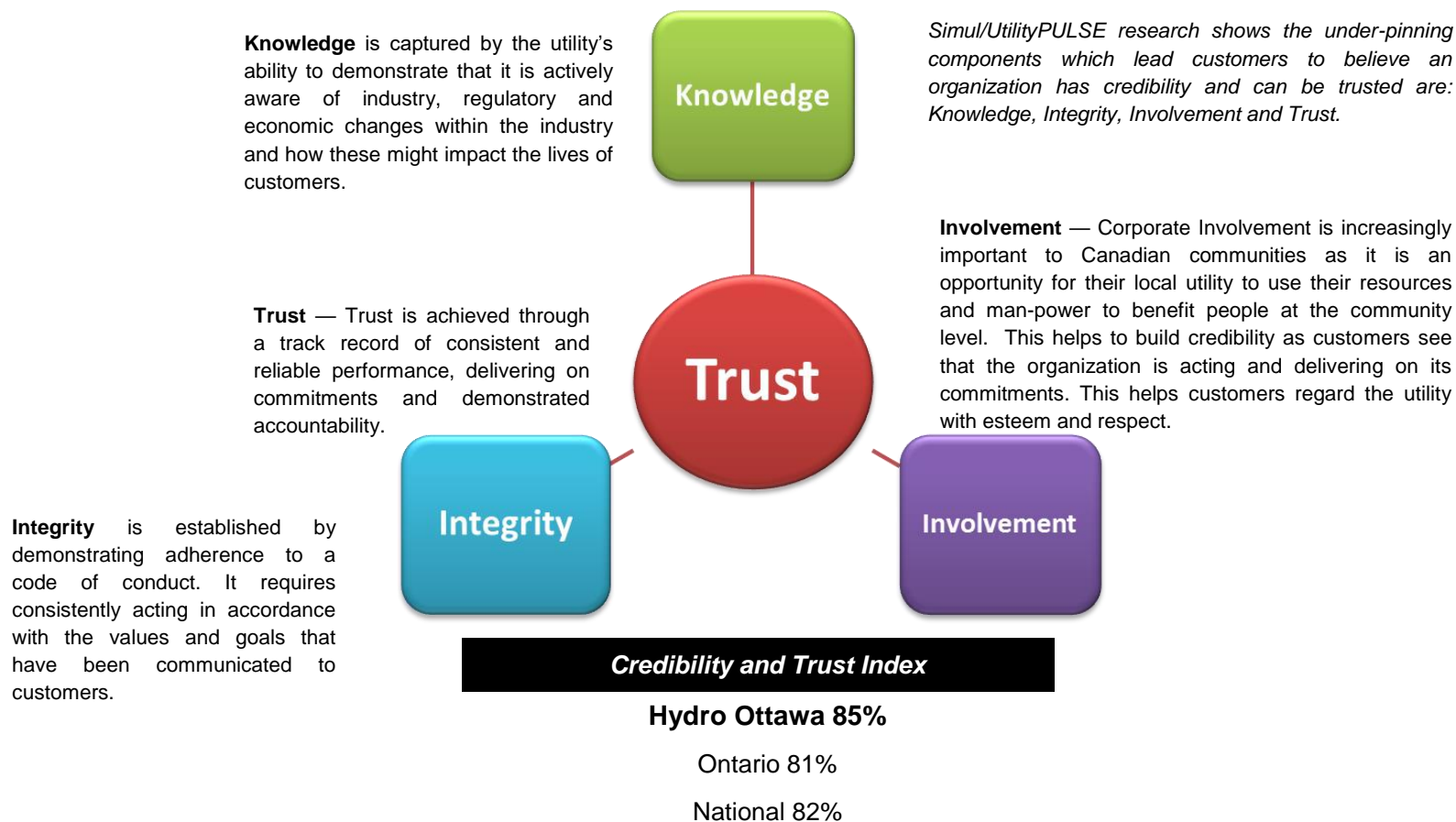
# Corporate Credibility & Trust

Credibility is a judgment, customers and others make about whether a person or an organization has the competencies and experience to do what they promise to do. Trust, is a feeling or belief, that a person or an organization they are dealing with is doing so in an honest, open manner with no hidden agendas. How customers and other stakeholders respond to your communications is affected by the person's perception. Without credibility and trust, everything you say to customers, employees, and others can be questioned.

Of paramount importance to maintaining credibility & trust is effectively managing expectations—customers, employees and other stakeholders that matter to the business of the LDC. A key to this is open and honest communications. An important benefit of having a high degree of credibility & trust is, authentic collaboration can become a reality. Credibility & trust is a powerful currency for building relationships. Credibility & trust are outcomes based on what the LDC actually does, not what it might be doing.

Attributes strongly linked to Credibility & Trust			
	Hydro Ottawa	National	Ontario
Overall the utility provides excellent quality services	86%	85%	86%
Keeps its promises to customers and the community	87%	79%	80%
Customer-focused and treats customers as if they're valued	83%	80%	79%
Is a trusted and trustworthy company	86%	83%	82%

Base: total respondents with an opinion



# How can service to customers be improved?

The electric utility industry is in a state of continuous transformation. External factors - including shifts in governmental policies, a global thrust to conserve energy, advances in new technologies and power generation are driving massive changes throughout the industry. LDCs of today and the future can also expect a much more intense level of customer involvement. UtilityPULSE research shows customers want to be heard.

Despite all the talk today centered on quality, new processes and systems, continuous improvement, and costs, unless all of this is aimed at obtaining customer satisfaction it will not be worth much over the longer term.

Qualitative questions typically do not provide the statistical richness which is associated with a quantitative question. However, they do provide words, phrases, insights into the thinking patterns and/or feelings of customers. This means qualitative questions have an interpretive richness that assists in deriving meaning from the survey. The broader range of suggestions we are getting when conducting the survey is a sign the customer base is becoming more and more segmented. Not all customers are the same.

The struggle for electric utilities is finding the right balance between cost-effective, technology-enabled approaches to customer services and person-to-person contact.

Customers want their utility to focus on what matters most; offer products and services which “make a difference in their life”, “gives them peace of mind” and “delivered by trusted and credible people”.

*And we are interested in knowing what you think are the one or two most important things Hydro Ottawa could do to improve service to their customers?*

One or two most important things ‘your local utility’ could do to improve service	
	Hydro Ottawa
Better prices/lower rates	44%
Better communication with customers	11%
Better information when outages occur	9%
Improve/simplify/clarify billing	8%
Improve reliability of power	5%
Information & incentives on energy conservation	5%
Improve customer service	3%
Improve public awareness	3%
Get involved in green energy	3%
Open longer hours	2%
Restore power faster	2%

Base: total respondents with suggestions

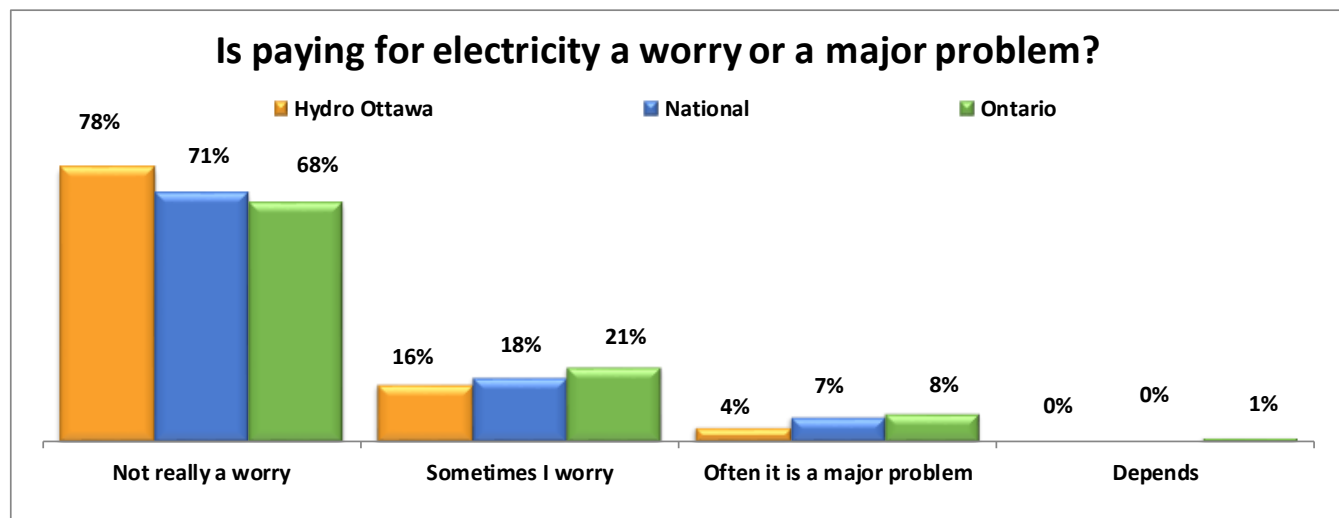
## What do customers think about electricity costs?

At the height of the 'anger' stage for many customers, the UtilityPULSE database showed 31% of survey respondents said they sometimes worried about paying their bill. Customers felt they were paying more but not getting more, especially disconcerting when wages and inflation were hovering around the 2% mark. Five years earlier that number was 21%. The 2017 25% reduction in costs, coupled with a promise to further reduce the cost and a better economy has helped to move the number back to 21% in Ontario. This is a huge change.

*Next, I am going to read a number of statements people might use about paying for their electricity. Which one comes closest to your own feelings, even if none is exactly right? Paying for electricity is not really a worry, Sometimes I worry about finding the money to pay for electricity, or Paying for electricity is often a major problem?*

Is paying for electricity a worry or a major problem?				
	Not a worry	Sometimes	Often	Depends
<b>Hydro Ottawa</b>	78%	16%	4%	0%
<b>National</b>	71%	18%	7%	0%
<b>Ontario</b>	68%	21%	8%	1%

Base: total respondents



Base: total respondents

Is paying for electricity a worry or a major problem?				
	Not a worry	Sometimes	Often	Depends
Hydro Ottawa				
<\$30,000	56%	33%	11%	0%
\$30<\$75,000	80%	15%	5%	0%
\$75,000+	84%	11%	2%	0%

Base: total respondents

Is paying for electricity a worry or a major problem?				
	Not a worry	Sometimes	Often	Depends
<b>Ontario</b>				
<b>2018</b>	68%	21%	8%	1%
<b>2017</b>	61%	26%	10%	1%
<b>2016</b>	49%	31%	16%	3%
<b>2015</b>	59%	25%	10%	2%
<b>2014</b>	59%	26%	11%	2%
<b>National</b>				
<b>2018</b>	71%	18%	7%	0%
<b>2017</b>	67%	19%	11%	1%
<b>2016</b>	58%	29%	10%	2%
<b>2015</b>	67%	22%	8%	2%
<b>2014</b>	69%	20%	7%	3%

Base: Ontario and National Benchmarks

## What do small commercial customers think?

Based on data in the UtilityPULSE database, small commercial customers have relatively similar views about their utility. The tables associated with this report will contain your specific information as it relates to residential and commercial customers. A word of caution, smaller data samples create greater swings or spreads in the data, hence mitigating the effect of a small data sample by using the UP database.



### **Small Commercial Customer (General Service < 50kW Demand)**

A small commercial customer is defined by the OEB as a non-residential customer in a less than 50 kW demand rate class. These customers are similar to the residential customer in that their bill does not have a demand component to it and their charges are based upon KWH of consumption. Most of these customers would occupy small storefront locations or offices

An area of concern is about the LDC's ability to "target" its communications to the type of business. Beyond having a contact telephone number, company name and address there isn't much "knowledge" about the small commercial customer. In a time when "targeted" communication is important, knowing the type of category of

small commercial account would assist LDCs in delivering meaningful messages in an effective way. This could be particularly important in the area of energy conservation, i.e., pulling together messages and programs for specific types of businesses. After all, a small restaurant is different from a small accounting office.

Satisfaction: Pre & Post		
Satisfaction (Top 2 Boxes: 'very + somewhat satisfied')	Residential	Commercial
Initially	93%	93%
End of Interview	92%	93%

Base: total respondents from the 2018 UtilityPULSE Database



As it relates to the six attributes associated with customer service:

Very or fairly satisfied with...	Residential	Commercial
The time it took to contact someone	73%	78%
The time it took someone to deal with your problem	71%	73%
The helpfulness of the staff who dealt with your problem	75%	81%
The knowledge of the staff who dealt with your problem	74%	77%
The level of courtesy of the staff who dealt with your problem	82%	88%
The quality of information provided by the staff member	74%	75%

Base: total respondents from the 2018 UtilityPULSE Database

Killer B's: Outages & Bills problems		
	Residential	Commercial
Respondents with outage problems	42%	39%
Respondents with billing problems	9%	8%

Base: total respondents from the 2018 UtilityPULSE Database

Overall satisfaction with most recent experience		
	Residential	Commercial
Top 2 Boxes: 'very + somewhat satisfied'	77%	77%
Bottom 2 Boxes: 'somewhat + very dissatisfied'	19%	20%

Base: total respondents from the 2018 UtilityPULSE Database

Comparisons between Residential and Commercial		
Loyalty Groups	Residential	Commercial
Secure	30%	32%
Still Favourable	17%	18%
Indifferent	46%	43%
At risk	7%	7%

Base: total respondents from the 2018 UtilityPULSE Database

Loyalty Model Factors		
	Residential	Commercial
Very/somewhat satisfied	93%	93%
Definitely/probably would continue	86%	87%
Definitely/probably would recommend	79%	83%

Base: total respondents from the 2018 UtilityPULSE Database

Important attributes which describe operational effectiveness		
	Residential	Commercial
Provides consistent, reliable electricity	92%	91%
Delivers on its service commitments to customers	89%	88%
Accurate billing	89%	88%
Quickly handles outages and restores power	91%	91%
Makes electrical safety a top priority	90%	90%
Is efficient at managing the electricity distribution system	86%	87%
Is a company that is 'easy to do business with'	86%	87%
Operates a cost-effective electricity distribution system	74%	74%
Standard of reliability meets expectations	91%	90%

Base: total respondents from the 2018 UtilityPULSE Database with an opinion

Important attributes which shape perceptions about service quality and value		
	Residential	Commercial
Is pro-active in communicating changes and issues which may affect customers	81%	81%
Provides good value for money	74%	75%
Customer-focused and treats customers as if they're valued	84%	83%
Deals professionally with customers' problems	87%	87%
Spends money prudently	82%	81%
Quickly deals with issues that affect customers	86%	85%
Provides information and tools to help manage electricity consumption	83%	79%
Provides information to help customers reduce their electricity costs	79%	75%
The cost of electricity is reasonable when compared to other utilities	64%	60%

Base: total respondents from the 2018 UtilityPULSE Database with an opinion

Important attributes which shape perceptions about corporate image		
	Residential	Commercial
Is a respected company in the community	87%	87%
A leader in promoting energy conservation	79%	79%
Keeps its promises to customers and the community	85%	84%
Is a socially responsible company	84%	85%
Is a trusted and trustworthy company	87%	87%
Adapts well to changes in customer expectations	79%	80%
Overall the utility provides excellent quality services	89%	87%

Base: total respondents from the 2018 UtilityPULSE Database with an opinion

Importance of online access for the following features:		
Top 2 Boxes: 'very + somewhat important'	Residential	Commercial
Reporting or inquiring about an issue	48%	52%
Researching information about energy conservation	40%	45%
Having a web chat feature on the website	20%	28%
Automated alerts when electricity usage exceeds a prearranged threshold	21%	30%
Review and pay your bill online (through utility's website)	44%	48%
Power outage alerts	65%	72%
Tools and calculators to help you manage your electricity consumption	30%	37%
Comparison of your electricity consumption with your neighbours	18%	26%
Automated alert to predict your upcoming bill	33%	37%
Automated alert to remind you of your bill due date	33%	37%

Base: total respondents from the 2018 UtilityPULSE Database

Preferred method of communication to receive notice of a billing issue		
	Residential	Commercial
Telephone	57%	55%
Voice Mail	2%	2%
Text	8%	4%
Email	33%	39%
Don't know	1%	1%

Base: total respondents from the 2018 UtilityPULSE Database

Method of communication Customers prefer their LDC uses during an UNPLANNED OUTAGE		
	Residential	Commercial
Recorded telephone message	34%	31%
Email notice	19%	29%
Posted on utility's website	4%	6%
Social media	5%	5%
Local radio	5%	5%
Local TV	3%	1%
Text message	25%	19%
Alert on APP	2%	2%

Base: total respondents from the 2018 UtilityPULSE Database

Method of communication Customers prefer their LDC uses about general news		
	Residential	Commercial
Recorded telephone message	23%	16%
Email notice	38%	49%
Posted on utility's website	6%	8%
Social media	6%	7%
Local radio	5%	5%
Local TV	5%	4%
Text message	10%	7%
Alert on APP	1%	2%

Base: total respondents from the 2018 UtilityPULSE Database

Satisfaction with information provided		
Top 2 Boxes: 'very + fairly satisfied'	Residential	Commercial
The amount of information available to you about energy conservation	82%	80%
The quality of information available when outages occur	73%	77%
The electricity safety education provided to the public	74%	76%
The timeliness and relevance of information for things such as planned outages, construction activity, tree trimming.	77%	80%

Base: total respondents from the 2018 UtilityPULSE Database

Access to services		
Top 2 Boxes: 'very + somewhat satisfied'	Residential	Commercial
The availability of call-centre staff Monday to Friday	58%	66%
The 24/7 availability of system operators to respond to respond to outages	78%	88%
The online self-serve options for managing your account	56%	72%
The online self-serve options for request services	48%	70%

Base: total respondents from the 2018 UtilityPULSE Database



## Method

The findings in this report are based on telephone interviews conducted for Simul Corp. / UtilityPULSE by Logit Group between September 17 - October 10, 2018, with 600 respondents who pay or look after the electricity bills from a list of residential and small and medium-sized business customers supplied by Hydro Ottawa.

The sample of phone numbers chosen was drawn randomly to ensure each business or residential phone number on the list had an equal chance of being included in the poll.

The sample was stratified so that 85% of the interviews were conducted with residential customers and 15% with commercial customers.

In sampling theory, in 19 cases out of 20 (95% of polls in other words), the results based on a random sample of 600 residential and commercial customers will differ by no more than  $\pm 4.00$  percentage points where opinion is evenly split.

This means you can be 95% certain that the survey results do not vary by more than 4.00 percentage points in either direction from results that would have been obtained by interviewing all Hydro Ottawa residential and small and

medium-sized commercial customers if the ratio of residential to commercial customers is 85%:15%.

The margin of error for the sub-samples is larger. To see the error margin for subgroups, use the calculator at <http://www.surveysystem.com/sscalc.htm>.

Interviewers reached 2,350 households and businesses from the customer list supplied by Hydro Ottawa. The 600 who completed the interview represent a 26% response rate.

The findings for the Simul/UtilityPULSE National Benchmark of Electric Utility Customers are based on telephone interviews conducted with adults throughout the country who are responsible for paying electric utility bills. The ratio of 85% residential customers and 15% small and medium-sized business customers in the National study reflects the ratios used in the local community surveys. The margin of error in the National poll is  $\pm 2.95$  percentage points at the 95% confidence level.

For the National study, the sample of phone numbers chosen was drawn by recognized probability sampling methods to ensure each region of the country was represented in proportion to its population and by a method

that gave all residential telephone numbers, both listed and unlisted, an equal chance of being included in the poll.

The data were weighted in each region of the country to match the regional shares of the population.

The margin of error refers only to sampling error; other non-random forms of error may be present. Even in true random samples, precision can be compromised by other factors, such as the wording of questions or the order in which questions were asked.

Random samples of any size have some degree of precision. A larger sample is not always better than a smaller sample. The important rule in sampling is not how many respondents are selected but how they are selected. A reliable sample selects poll respondents randomly or in a manner which ensures that everyone in the population being surveyed has an equal chance of being selected.

How can a sample of only several hundred truly reflect the opinions of thousands or millions of electricity customers within a few percentage points?

Measures of sample reliability are derived from the science of statistics. At the root of statistical reliability is probability, the odds of obtaining a particular outcome by chance alone. For example, the chances of having a coin come up heads

in a single toss are 50%. A head is one of only two possible outcomes.

The chance of getting two heads in two coin tosses is less because two heads are only one of four possible outcomes: a head/head, head/tail, tail/head and tail/tail.

But as the number of coin tosses increases, it becomes increasingly more likely to get outcomes that are either close to or exactly half heads and half tails because there are more ways to get such outcomes. Sample survey reliability works the same way but on a much larger scale.

As in coin tosses, the most likely sample outcome is the true percentage of whatever we are measuring across the total customer base or population surveyed. Next most likely are outcomes very close to this true percentage. A statement of the potential margin of error or sample precision reflects this.

Some pages in the computer tables also show the standard deviation (S.D.) and the standard error of the estimate (S.E.) for the findings. The standard deviation embraces the range where 68% (or approximately two-thirds) of the respondents would fall if the distribution of answers were a normal bell-shaped curve. The spread of responses is a way of showing how much the result deviates from the "standard mean" or average. In the Hydro Ottawa data on corporate image,

Simul converted the answers to a point scale with 4 meaning agree strongly, 3 meaning agree somewhat and so on (see in the computer tables).

For example, the mean score is 3.73 for providing consistent, reliable electricity. The average is 3.27 for providing information to help customers reduce their energy costs.

For reliable electricity, the standard deviation is 0.55. For providing information to help customers reduce their energy costs, the S.D. is 0.83. These findings mean there is a wider range of opinion – meaning less consensus – about whether help to reduce energy costs than about whether Hydro Ottawa energy supplies are reliable.

Beneath the S.D. in the tables is the standard error of the estimate. The S.E. is a measure of confidence or reliability, roughly equivalent to the error margin cited for sample sizes. The S.E. measures how far off the sample's results are from the standard deviation. The smaller the S.E., the greater the reliability of the data.

In other words, a low S.E. indicates the answers given by respondents in a certain group (such as residential bill payers or women) do not differ much from the probable

spread of the answers "predicted" in sampling and probability theory.

In certain instances, all of the sub-datasets from the entire UtilityPULSE database for 2018 were concatenated in order to use the average of all the control samples for comparison. The cumulated population base for these questions was in excess of 9,000.

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Good things happen when workplaces work. You'll receive both strategic and pragmatic guidance about how to improve Customer satisfaction & Employee engagement with leaders who lead and a front-line which is inspired. We provide training, consulting, surveys, diagnostic tools, and keynotes. The electric utility industry is a market segment we specialize in. Both large and small utilities have received actionable insights. For 20 years we have been talking to 1000's of utility customers in Ontario and across Canada and we have expertise which is beneficial to every utility.

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**Your personal contact is:**

**Sid Ridgley, CSP**

**Phone: (905) 895-7900 x 29 E-mail: [sridgley@simulcorp.com](mailto:sridgley@simulcorp.com)**



# Hydro Ottawa

## 21<sup>st</sup> Annual Electric Utility Customer Satisfaction Survey



**The purpose of this report is to profile the connection between Hydro Ottawa and its customers.**

The primary objective of the Electric Utility Customer Satisfaction Survey is to provide information to support discussions about improving customer care at every level in your utility.

The UtilityPULSE Report Card® and survey analysis contained in this report is intended to capture the state of mind or perceptions about your customers' need and wants – the information contained in this report will help guide your discussions for making meaningful improvements.

This survey report is privileged and confidential material, and no part may be used outside of Hydro Ottawa without written permission from UtilityPULSE, the electric utility survey division of Simul Corporation.

All comments and questions should be addressed to:

Sid Ridgley, UtilityPULSE division, Simul Corporation

Phone: 905-895-7900 x 29

Email: [sridgley@simulcorp.com](mailto:sridgley@simulcorp.com)

# The Need for Credibility and Trust

Customers continue to be concerned about the costs of electricity today and what they might be in the future. In a separate study conducted August 2019, UtilityPULSE asked 1,000 Ontarians, *“How confident are you in the new Ontario Conservative government, elected in June 2018, to deliver the additional 12% reduction in electricity costs?”* Only 27% were very or somewhat confident, 53% were very or somewhat unconfident, and 14% were neither confident or unconfident. In follow-up questions, 38% agree the savings would be achieved by reducing customer service levels, and 34% agree savings would come from a delay in maintenance of the electricity system. These findings, coupled with a revamping of the Ontario Energy Board, tell us the industry has a believability issue, and that spells opportunity for Hydro Ottawa.



It is human nature to seek out support during times of disruption and uncertainty. Based on our 21 consecutive years of customer research, we believe Ontario LDCs are the entities best poised to provide that support.

Why?

## Credibility & Trust Index

Hydro Ottawa is trusted by its customers; 88% agree strongly or somewhat that the LDC is trusted and trustworthy. Your Credibility & Trust score is 87% while the Ontario benchmark is 84%, and the National benchmark is 84%.

Expectations from customers and other stakeholders continue to rise, which means, LDCs must continue to move forward to meet those expectations – and do so while mitigating the risks associated with maintaining a strong electricity delivery network. Being a monopoly isn't a license to stop improving.

Credibility & trust is a powerful currency for building relationships. Credibility & trust are outcomes based on what the LDC does, not what it might be doing. Hence a lot more pressure on the need for constantly communicating relevant information to the customer base.

Your survey was conducted from September 3 - September 19, 2019, and is based on 604 one-on-one telephone interviews with residential and small commercial customers who pay or look after the electricity bill. Also, survey findings for Hydro Ottawa are enhanced with the inclusion of data from our UtilityPULSE database and the independently produced Ontario and National Benchmarks.



Base: total respondents: Top 2 Boxes: "Strongly agree + agree"

## Communication Score

We live in a world where polarized viewpoints are considered “normal,” and self-needs supersede social-needs. It is not that people don’t care about what is going on around them or how others may be impacted; they care more about what is happening or could happen to them first.

From a human nature point-of-view, self-interest leads to emotional reactions and decision-making. Even in a commodity purchase environment such as electricity, communicating reams of data and numbers won’t help the LDC get the support it needs to make changes. Communications cannot be an after-thought, it must be pro-active, and it must be delivered via multiple platforms.



Communication Score		
	Ontario LDCs	Hydro Ottawa
Communication Score	79%	80%

Base: An aggregate of respondents from 2019 participating LDCs / total respondents from the local utility

Hydro Ottawa received a respondent score of 83% for the attribute “*is pro-active in communicating changes and issues which may affect electric service.*”

### Communication channels preferred by customers to receive notice about Billing Issue (Other than arrears)

UtilityPULSE database information tells us that the preferred channel for communications can change based on the type of issue which exists, e.g., a billing issue versus an unplanned outage issue. Two things we believe LDCs must be mindful of:

1. The preferred communication channel is determined by the customer, not by the LDC.
2. There is a higher expectation that the LDC will become more “outbound” communications driven.

Hydro Ottawa's customers' preferred or primary method for Hydro Ottawa to contact them about billing issues are as follows:

Preferred method of communication to receive notice of a Billing Issue (Other than arrears)		
	Ontario LDCs	Hydro Ottawa
Telephone	54%	43%
Voice Mail	0%	2%
Text	8%	9%
Email	35%	45%
Don't know	1%	1%

Base: An aggregate of respondents from 2019 participating LDCs / total respondents from the local utility



Hydro Ottawa also wanted to better understand customers' preferred method of contact should there be a time sensitive billing issue such as being overdue or in arrears.

Preferred method of communication to receive notice of a time sensitive Billing Issue i.e. Overdue/Arrears	
Hydro Ottawa	
Mail	11%
Email	45%
Phone/Voice mail	29%
SMS/Text	14%
Don't know	1%

Base: total respondents











LDCs, for the most part, are primarily set up as “inbound” problem solvers and communicators. The notion or idea that the LDC needs to become more “outbound” with personalized channel communication is a challenge from an organizational culture and operations perspective. Yet, if the LDC doesn’t become more outbound driven, it will have to invest more into inbound methods for solving problems – which is extremely expensive.

Our data show “older” respondents have a heavier desire to communicate via the telephone, but youths, especially those in the 18-34 range, are far more comfortable getting and receiving information electronically. But preferences are changing. The UtilityPULSE database shows about 1 in 3 respondents in the 55+ age category prefer to receive notice about a billing issue via electronic means, while almost 2 in 3 respondents in the 18-34 age range prefer the electronic channels of email and text.

### Communication during Unplanned Outages



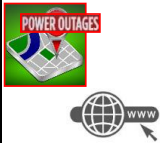





In times of emergency, be they extreme weather events or major equipment failures that cause blackouts and unplanned outages, customer communication can help customers understand what to expect next and when disrupted electricity service might be restored. Early and effective communication helps increase confidence in and credibility of the electricity service provider.

Respondents were asked which communication channel they most preferred Hydro Ottawa to use **during an unplanned outage**.

Method of communication Customers prefer their LDC uses during an UNPLANNED OUTAGE							
Recorded Telephone Message or Call-in outage line	Email Notice	Outage Map posted on the utility's website	Social Media	Text Message	Alert on mobile APP	Outage Map posted on mobile APP	SMART Assistant such as Alexa or Google
							
16%	29%	9%	5%	29%	5%	3%	1%

Base: total respondents

Respondents were asked the preferred communication channel Hydro Ottawa should use **during a planned outage**; times when the utility needs to undertake works on their network (poles, wires, meters, transformers, substations, etc.) to maintain a safe and reliable supply.

Method of communication Customers prefer their LDC uses during a PLANNED OUTAGE							
Recorded Telephone Message or Call-in outage line	Email Notice	Outage Map posted on the utility's website	Social Media	Text Message	Alert on mobile APP	Outage Map posted on mobile APP	SMART Assistant such as Alexa or Google
							
15%	44%	3%	3%	25%	3%	1%	0%

Base: total respondents: Respondents stating "Other": 4% mail/flyer

Interesting to note, the UtilityPULSE database shows about 7 out of 10, 18 to 34-year-old respondents prefer the electronic outbound communication channels compared to about 5 out of 10, of the 55+ age group.

As it relates to inbound communications, respondents aged 18 to 34 are almost 3 times more likely to go to an outage map on a website than the 55+ age group. However, the 55+ age group is almost 5 times more likely to call into a toll-free outage line.

## The Core Responsibilities

Talk as we might about societal changes, the reality is, LDCs have a core responsibility that no other organization owns; the safe and reliable delivery of electricity. Survey respondents gave Hydro Ottawa excellent operational and representative scores.

Core Operational Attributes			
	Hydro Ottawa	National	Ontario
<b>Provides consistent, reliable energy</b>	92%	91%	91%
<b>Quickly handles outages and restores power</b>	89%	88%	88%
<b>Accurate billing</b>	89%	88%	89%
<b>Has a standard of reliability that meets expectations</b>	91%	89%	90%
<b>Makes electricity safety a top priority</b>	91%	88%	89%

Base: total respondents with an opinion

Core Customer Service Quality Attributes			
	Hydro Ottawa	National	Ontario
<b>Deals professionally with customers' problems</b>	90%	85%	84%
<b>Is 'easy to do business with'</b>	85%	83%	83%
<b>Customer-focused and treats customers as if they're valued</b>	84%	82%	80%

Base: total respondents with an opinion

## Issues: Billing and Blackouts, the “Killer B’s”

As the province’s interest shifts toward building a more efficient electric system capable of handling growing demand with smoother incorporation of renewable energy sources, the LDC’s consistent communication about how/what you are doing to minimize risk factors and improve reliability in the electricity network, will increase the perception that the LDC is a credible organization.

Bills & Blackouts are the top two issues that cause the most disruption to customers. Our UtilityPULSE database shows 18% of respondents said they had a billing issue (Spring 2017) compared to about 8% in 2019. The drop is primarily the result of reduced prices and a better economy. In 2017, 88% of respondents'

Our database shows low-income customers (<\$30,000 household) are about 35% more likely than high-income customers (>\$75,000 household) to site high bills or to have a complaint about rates.

### Problems: Blackouts

Percentage of Respondents indicating that they had a Blackout or Outage problem in the last 12 months			
	Hydro Ottawa	National	Ontario
<b>2019</b>	38%	44%	45%

Base: total respondents



### Problems: Billing issues

Percentage of Respondents indicating that they had a Billing problem in the last 12 months			
	Hydro Ottawa	National	Ontario
<b>2019</b>	7%	9%	9%

Base: total respondents



## Customer Service

While it is true, Hydro Ottawa receives very good operational scores; it also has a responsibility to professionally and quickly deal with issues customers contact them about. In a complex electricity industry world, this puts additional strain on the skills and competencies of everyone who interacts with customers.

Satisfaction with Customer Service			
Top 2 Boxes: 'very + fairly satisfied'	Hydro Ottawa	National	Ontario
The time it took to contact someone	74%	69%	71%
The time it took someone to deal with your problem	70%	72%	70%
The helpfulness of the staff who dealt with you	78%	77%	78%
The knowledge of the staff who dealt with you	76%	74%	71%
The level of courtesy of the staff who dealt with you	81%	79%	77%
The quality of information provided by the staff who dealt with you	76%	75%	74%

Base: total respondents who contacted the utility

### Customer Experience Performance rating (CEPr)

The truth is, your organization can be excellent at handling customer issues online, in-person, and on-the-telephone, with superb performance numbers. Yet, suffer in the area of corporate image. While an excellent transaction today creates a positive experience, the perception created is, future transactions will be excellent too. Of course, a negative transaction creates the perception that future transactions will also be negative. The Professional Customer Care dimension of the CEPr represents the emotional side of an interaction, while the Quality of Service dimension represents the functional side of an interaction.

Customer Experience Performance rating (CEPr)			
	Hydro Ottawa	National	Ontario
<b>CEPr: all respondents</b>	88%	85%	86%

Base: total respondents

When the customer experience is positive and strong, the opportunity to build affinity/loyalty is great. When the experience is a negative one, customers often conclude the organization doesn't care. When a customer believes the organization doesn't care, outrage and anger are a very real possibility.

From an image point-of-view, Hydro Ottawa received very good scores for the attributes "keeps its promises to its customers and the community" →87% and "overall the utility provides excellent quality services" →89%.



### Customer Centric Engagement Index (CCEI)

A quick search on the internet will reveal many different definitions for the words “customer engagement.” While there may be differences, the common theme is how UtilityPULSE defines CE, which is, “*Customer engagement is the emotional connection achieved by the ongoing interactions between a customer and the organization.*”

The goal is to help customers:

- feel valued as a customer,
- appreciate being connected to a respected and trusted company and,
- have confidence the company will adapt well to changes in customer expectations.

As a reader, what you may not know is, Secure customers, demonstrate much higher levels of engagement than customers who are At Risk. It is much easier to gain support for changes from highly-engaged and Secure customers than from those who are not engaged and virtually hate the LDC. Hydro Ottawa has scored well on this index.

Utility Customer Centric Engagement Index (CCEI)			
	Hydro Ottawa	National	Ontario
CCEI	87%	83%	83%

Base: total respondents

## Customer Satisfaction

By itself, this metric is not enough to gain a picture of how well an LDC is doing, but it is a measure about whether the LDC is doing the job of taking care of customers as expected. However, without satisfaction, there is no gateway to loyalty.

The “initial” satisfaction score is meant to capture a “top-of-mind” satisfaction rating, and it is the first question in the survey (after qualifying the respondent). Asking the general satisfaction question at the start of the survey avoids bias, and we obtain a spontaneous rating.

Towards the end of the survey, we ask the satisfaction question again, i.e., “now that we’ve been talking about your electric utility for a while, how satisfied are you?” That is, once the respondent has been asked about bills, blackouts, and various attributes of the LDC, we gain what is called a more considered (or conditioned) response. Ideally, we like to see the PRE and POST Satisfaction scores as being quite similar, i.e., +/- 2 points.

SATISFACTION SCORES – Electricity customers’ satisfaction			
Top 2 Boxes: ‘very + fairly satisfied’	Hydro Ottawa	National	Ontario
PRE: Initial Satisfaction Scores	95%	93%	92%
POST: End of Interview	94%	93%	92%

Base: total respondents

The real prize is in the development of a relationship with customers. More good things exist when a customer has a high affinity for the LDC than when they dislike it. At Risk customers are more likely to complain than other customers when there are issues. Secure customers are more likely to support the direction of their LDC.

## Loyalty Groups – Customer Affinity

For electric utilities, customer affinity is an attitudinal metric, not a behavioural metric (as it would be for private industry). None-the-less, customers do feel some level of connection with their utility. There are customers who truly dislike and disrespect their utility, and there are those who feel connected to their utility.

Customer Loyalty Groups				
	Secure	Favorable	Indifferent	At Risk
Hydro Ottawa	28%	22%	45%	5%
National	27%	17%	49%	7%
Ontario	27%	16%	48%	9%

Base: total respondents

## Customer Advocacy

Electricity customers' loyalty – ... is a company that you would recommend to a friend or colleague			
	Hydro Ottawa	National	Ontario
Top 2 boxes: 'Definitely + Probably' would recommend	80%	77%	74%

Base: total respondents

## Customer Commitment

Electricity customers' loyalty – ... Is a company that you would like to continue to do business with			
	Hydro Ottawa	National	Ontario
Top 2 Boxes: 'Definitely + Probably' would continue	87%	83%	82%

Base: total respondents

### UtilityPULSE Report Card®

The purpose of the UtilityPULSE Report Card is to provide electric utilities with a snapshot of performance – on the things customers deem to be important.

Hydro Ottawa's UtilityPULSE Report Card®				
Performance				
	CATEGORY	Hydro Ottawa	National	Ontario
1	<b>Customer Care</b>	<b>A</b>	<b>B+</b>	<b>B+</b>
	Price and Value	B+	B+	B+
	Customer Service	A	A	A
2	<b>Company Image</b>	<b>A</b>	<b>A</b>	<b>A</b>
	Company Leadership	A	A	A
	Corporate Stewardship	A	A	A
3	<b>Management Operations</b>	<b>A</b>	<b>A</b>	<b>A</b>
	Operational Effectiveness	A	A	A
	Power Quality and Reliability	A+	A	A
<b>OVERALL</b>		<b>A</b>	<b>A</b>	<b>A</b>

Base: total respondents

### Paying for electricity

For 21 years, UtilityPULSE research shows ‘ability to pay’ as having an exceptionally strong correlation to satisfaction. For example, the UtilityPULSE database from Fall 2019, based on over 7,000+ interviews, shows a 10% lower satisfaction level for those who say paying for electricity is “often a problem” versus those who say, “not a worry.” The good news for the industry as a whole is, the number of respondents who answered, “often a problem” during the Fall 2019 interviews is about 5% lower than Spring 2017 levels. For Hydro Ottawa, 6% of respondents identified themselves as a person who finds paying their bill was “often a problem” versus 75% who claimed to pay for electricity was “not a worry.” Despite reliability, operational efficiency, customer care professionalism, or a strong brand, for the LDC, ‘ability to pay’ is a major factor in determining a customer’s perception of LDC performance.

Is paying for electricity a worry or a major problem?				
	Not a worry	Sometimes	Often	Depends
<b>Hydro Ottawa</b>	75%	15%	6%	2%
<b>National</b>	74%	18%	6%	0%
<b>Ontario</b>	72%	19%	7%	6%

Base: total respondents

It is important to note, every age category, every income level, every kWh usage level, has respondents who identified themselves as people who find paying for electricity is “often a problem.”

## Numbers at a Glance for 2019

	Hydro Ottawa	National	Ontario
<b>Customer Satisfaction: Initial</b>	95%	93%	92%
<b>Customer Satisfaction: Post</b>	94%	93%	92%
<b>Communication Score</b>	80%	--	79%
<b>Overall Satisfaction with the most recent experience</b>	87%	81%	79%
<b>Customer Experience Performance Rating (CEPr)</b>	88%	85%	86%
<b>Customer Centric Engagement Index (CCEI)</b>	87%	83%	83%
<b>Credibility &amp; Trust Index</b>	87%	84%	84%
<b>UtilityPULSE Report Card®</b>	A	A	A

While the customer base is concerned about costs and rising costs, we believe the customer base is becoming more vocal about what they are looking for from their LDC. For example, data from the UtilityPULSE database shows a 21% increase in the number of respondents providing suggestions Fall 2019 versus 2017. Suggestions which have almost doubled in frequency over the last two years include: *“Better communications”*; *“Provide more energy conservation info”* [though no longer a responsibility of the LDC]; *“Better reliability/less outages”* and *“Better information on outages”* and our favourite *“Am satisfied, keep up the good work.”*

Where to from here?

We believe that LDCs, like Hydro Ottawa, must promote and manage their public image. We know this because the Company Image portion of the UtilityPULSE Report Card® now represents over a 25% weighting

for respondents versus a 15-17% rating when first published. Of the many items which can affect perceptions about an image, there are two which are of significance for impacting your LDC's image. Factor number one is to recognize that every customer touchpoint has the power to affect perception, and factor number two is, every employee or representative of Hydro Ottawa has a role to play in influencing the image of the LDC. After-all, Hydro Ottawa remains what we call an influential brand company.

We also know from the data that respondents for Hydro Ottawa who said their problem was solved had a 90% level of satisfaction, while those who said their problem wasn't solved was 92%. Quickly solving problems requires two things: (1) Processes have to be easy and fast, and (2) Employees need to be empowered – and expected --- to act. What you may not know is, employee empowerment is a huge factor for increasing employee engagement.

Based on the last few years, data also shows there are noticeable shifts away from using the telephone as the exclusive method for solving problems or getting service towards more of the electronics methods. The good news is, the shift will help the organization be more efficient, the bad news is, the LDC cannot abandon the telephone, and it must recognize that calls coming in will be more complex than in the past. The electronic methods typically help customers handle simpler requests, while people handle more complex ones. The pace for moving towards more electronic methodologies does vary by several factors, such as age, access to the internet, comfort with technology, and speed of the internet. As a rule of thumb, LDCs in larger communities need to move at a faster pace adopting technology than LDCs in rural communities.

This report started by talking about trust and credibility and its importance to customers in a world of uncertainty. High levels of trust and credibility mean high levels of affinity (loyalty) to Hydro Ottawa. But why

should an LDC care about this, when a customer can't leave? From a satisfaction point-of-view, those who give high recommendation scores had a satisfaction score of 97% versus 73% for those with a low recommendation score. Those with high recommendation scores experience fewer outages, are less likely to contact the LDC about the outage, have fewer billing problems, and again less likely to contact the LDC about the billing issue.

The insight here is this. Satisfaction scores are affected by transactions, essentially the tangible side of service delivery. Transactions, whether good or bad, create a foundation for affinity (loyalty) to occur. Perceptions about trust and credibility are intangible and based on how a person feels.

The OEB's October 22, 2019 announcement regarding the new TOU rates and the subsidy to be given, suggest that the Ontario government has abandoned its election promise of an additional 12% reduction in costs. In addition, we have an Ontario Energy Board in transition which will, no doubt, create disruption in the industry. While LDCs may not have much influence over these two items, what we do know is Hydro Ottawa, can influence how the organization is seen by its customers and other stakeholders. We recommend ensuring the topic of customer care and the responsibility for providing excellent care, is on the meeting agendas for every department.

Sid Ridgley  
Simul/UtilityPULSE  
Email: [sridgley@simulcorp.com](mailto:sridgley@simulcorp.com)

November 2019

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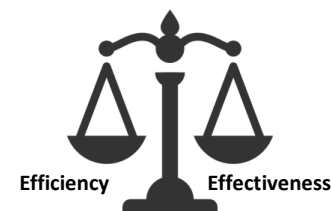
## Satisfaction (pre & post)

As stated multiple times over many years, measuring satisfaction is an important starting point for the creation of loyal customers. However, it is a misnomer to conclude that highly satisfied customers are also customers with a high affinity or loyalty quotient. One can be satisfied but not necessarily loyal. But it is true to conclude that the LDC (its people) must do the job as expected and required before there can be a positive emotional connection.

We've stated in the past, a focus on satisfaction prompts an organization to continue to evolve in ways that make sense to those who pay the bills. A focus on satisfaction is a focus on effectiveness in the delivery of service to the customer. Satisfied customers who trust their LDC may be more likely to seek advice, i.e., energy efficiency methods, and be more receptive to important messages, i.e. safety, new capital projects, etc.

About ratings/measures:

- Satisfaction is not a program; it is an outcome.
- **Efficiency** is about achieving objectives with the minimum amount of people, time, money, and other resources.
- **Effectiveness** ratings are measures keeping the organization and its people more future-focused than efficiency ratings

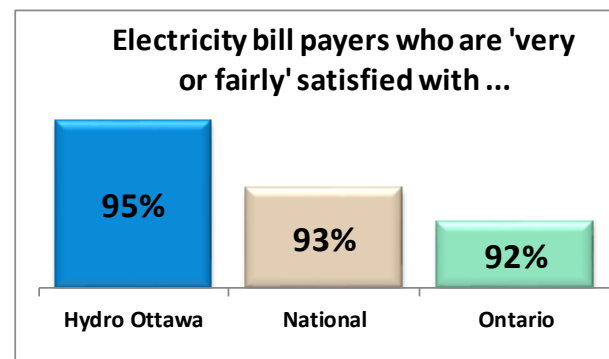


Finding the right balance between efficiency and effectiveness measures is difficult.

Efficiency ratings won't lead to satisfaction, but they can lead to dissatisfaction. Taking 90 seconds to answer the phone will create an agitated customer who, for the most part, starts off being dissatisfied with the service – before you've even had a chance to deal with or solve their problem. Answering the phone in 20 seconds but not solving the customer's problem is not going to ameliorate the customer's perception of the transaction.

Customer expectations of their electricity LDC have evolved past the “provide electricity reliably, safely, and billed both accurately with fair pricing.” They do expect their LDC to be ethical, forward-thinking, competent, and trustworthy.

- **Satisfaction** happens when utility core services meet or exceed customer's needs, wants, or expectations.
- **Loyalty** occurs when a customer makes an emotional connection with their electric utility on a diverse range of expectations beyond core services.



Base: total respondents

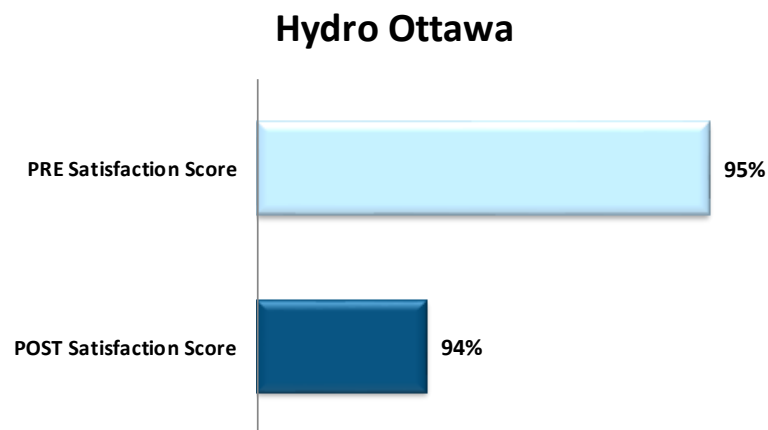
Satisfaction alone does not make a customer loyal; a willingness to commit and advocate for a company, along with satisfaction, identifies the three basic customer attitudes which underpin loyalty profiles. While satisfaction

is an important component of loyalty, the loyalty definition needs to incorporate more attitudinal and emotive components.

Electricity bill payers who are 'very or fairly' satisfied with...					
	2019	2018	2017	2016	2015
Hydro Ottawa	95%	94%	90%	81%	87%
National	93%	91%	90%	86%	89%
Ontario	92%	91%	85%	81%	86%

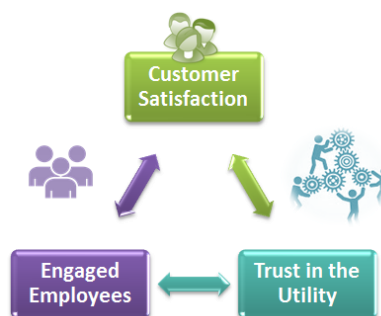
Base: total respondents / (-) not a participant of the survey year

In the Simul/UtilityPULSE Customer Satisfaction survey, the overall satisfaction question is asked both at the beginning (PRE) and the end (POST). Asking the general satisfaction question at the start of the survey avoids bias, and we obtain a spontaneous rating. This allows measurement of customers' overall impressions of the utility before prompting them to think of specific aspects of the relationship. After we have asked about specific aspects of the customer experience, we gain a more *considered* (or conditioned) response.



Base: total respondents

As with any enterprise, Hydro Ottawa is obligated to satisfy its customers. But the rewards for satisfying customers go far beyond “obligation.” Customers with high levels of satisfaction handle problems far better than customers with low satisfaction. Stronger relationships with customers generate higher levels of involvement and participation. For employees, serving customers who are very satisfied, are more enjoyable interactions than with customers who are very dissatisfied. Satisfied and engaged employees who work in an organizational culture that promotes service excellence with empowerment is an important key for completing the job both efficiently and effectively.



SATISFACTION SCORES – Electricity customers' satisfaction			
Top 2 Boxes: 'very + fairly satisfied'	Hydro Ottawa	National	Ontario
PRE: Initial Satisfaction Scores	95%	93%	92%
POST: End of Interview	94%	93%	92%

Base: total respondents

A mutual correlation exists between employee and customer attitudes and loyalty. Employees who are trained well, have the right tools, and are focused on successful outcomes for customers contribute greatly to the customers' perception of their utility. There is a direct, irrefutable link between empowered and engaged employees and customer satisfaction – after all -- *your employees are part of your brand, and they deliver the promises you make.*

#### Hydro Ottawa

SATISFACTION SCORES – Electricity customers' satisfaction		
Top 2 Boxes: 'very + fairly satisfied'	Residential	Commercial
Satisfaction Scores	94%	98%

Base: total respondents

SATISFACTION SCORES – Electricity customers' satisfaction [kwh usage]			
Top 2 Boxes: 'very + fairly satisfied'	kWh Group 1	kWh Group 2	kWh Group 3
Satisfaction Scores	95%	95%	94%

Base: total respondents

SATISFACTION SCORES – Electricity customers' satisfaction [Income]			
Top 2 Boxes: 'very + fairly satisfied'	<\$30K	\$30 – \$75K	\$75K +
Satisfaction Scores	83%	98%	95%

Base: total respondents

## Customer Service

As written in previous years, given the rapidly expanding availability and use of technology, finding an appropriate balance between automated self-service and human-interactive service is a huge challenge for all involved in providing service to customers. Customer Service is about the experience your customers have with your utility, your products, and your service – regardless of the channel used for delivering customer service. The goal is to ensure each of your customers receives high-quality customer service and an experience that meets or exceeds their expectations - on every interaction with the LDC.

Given the increased complexity for delivering customer service, we have seen a shift towards a stronger focus on the touchpoints which create the customer experience.

Most of us want the same things when we are customers: We want to be treated with respect. We want to be listened to. We don't want to be bounced around or ignored or treated as inferior. The customer experience is largely defined by the outcomes generated when customers have a need, want to solve a problem or want answers to issues/concerns they face.

With more technology, there will be more shifting of calls away from the call centre. However, the volume of calls that remain are and will be more complex and challenging. We're already witnessing the fact that calls are taking longer to deal with customer issues.



Customers are more concerned about outcomes, and they want their issue, problem, or concern to be dealt with in a professional, knowledgeable, and timely manner. Respondents were asked about six aspects of their most recent experience with a representative from Hydro Ottawa.

- Information – the quality of the information provided
- Staff attitude – the level of courtesy
- Professionalism – the knowledge of the staff
- Delivery – helpfulness of the staff
- Timeliness – the length of time it took to get what they needed
- Accessibility – how easy it was to contact someone



Base: total respondents who contacted the utility

Satisfaction with Customer Service			
Top 2 Boxes: 'very + fairly satisfied'	Hydro Ottawa	National	Ontario
The time it took to contact someone	74%	69%	71%
The time it took someone to deal with your problem	70%	72%	70%
The helpfulness of the staff who dealt with you	78%	77%	78%
The knowledge of the staff who dealt with you	76%	74%	71%
The level of courtesy of the staff who dealt with you	81%	79%	77%
The quality of information provided by the staff who dealt with you	76%	75%	74%

Base: total respondents who contacted the utility

Overall satisfaction with most recent experience			
	Hydro Ottawa	National	Ontario
Top 2 Boxes: 'very + fairly satisfied'	87%	81%	79%

Base: total respondents who contacted the utility

Every interaction with a customer is an opportunity to generate higher levels of affinity. It is fool-hardy to view the ratings shown above as ratings for the “call-centre” because every person in Hydro Ottawa interacts with a customer or supports those who do have person-to-person contact with a customer. Empowerment is the backbone of the service recovery principle. In the face of error or problems, acting quickly and decisively, being empowered, and turning a dissatisfied customer into a satisfied one tends to have a positive impact.

## Customer Focus – Service Quality



Current measures in the LDC scorecard are: New Residential Services Connected on Time; Scheduled Appointments Met on Time; and Telephone Calls Answered on Time. These are good examples of efficiency measures, as all are time-based. Showing up on time may not create satisfaction (in fact, it is what is expected); not showing up on time will cause dissatisfaction.

UtilityPULSE findings from working with many LDCs over the past few years indicate it is much harder to get great ratings from customers who may not know much about their LDC's standards for service. Despite this, service quality ratings for Hydro Ottawa are very good compared to the Ontario benchmark.

Other dimensions of Service Quality which customers value include:

Core Customer Service Quality Attributes			
Top 2 boxes, 'strongly + somewhat agree'	Hydro Ottawa	National	Ontario
Deals professionally with customers' problems	90%	85%	84%
Customer-focused and treats customers as if they're valued	84%	82%	80%
Is a company that is 'easy to do business with'	85%	83%	83%

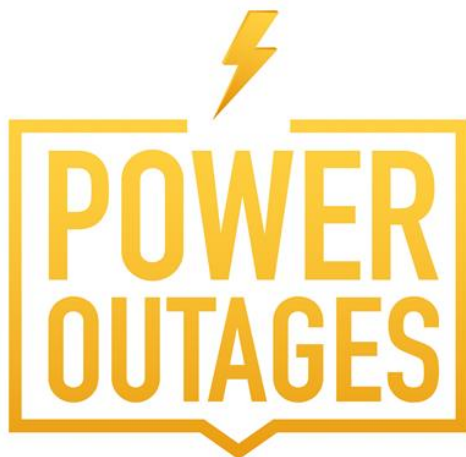
Base: total respondents with an opinion

We live in an imperfect world, so mistakes are bound to happen. In the LDC world, not all customer problems are mistakes; some are externally driven. None-the-less customers expect professionalism when interacting with "their" LDC.

## Bill Payers' Problems and Problem Resolution

As previously written over multiple years, we call blackouts (outages) and billing problems, the “Killer B’s,” the two issues which are most likely to cause grief to utility customers.

At one time, if the power went off for a few minutes, it was considered annoying and inconvenient. However, with the onset of computers and smart appliances in homes and businesses, a power outage is now unbearable.



Customers have little tolerance for an interruption in their flow of electricity.

LDCs have certainly been putting more energy into disseminating information to customers about outages. Many have installed an “outage map” on their website. However, our UP database shows only 8% of customers would accessed their LDC’s website to get information about an outage or look at the outage map!

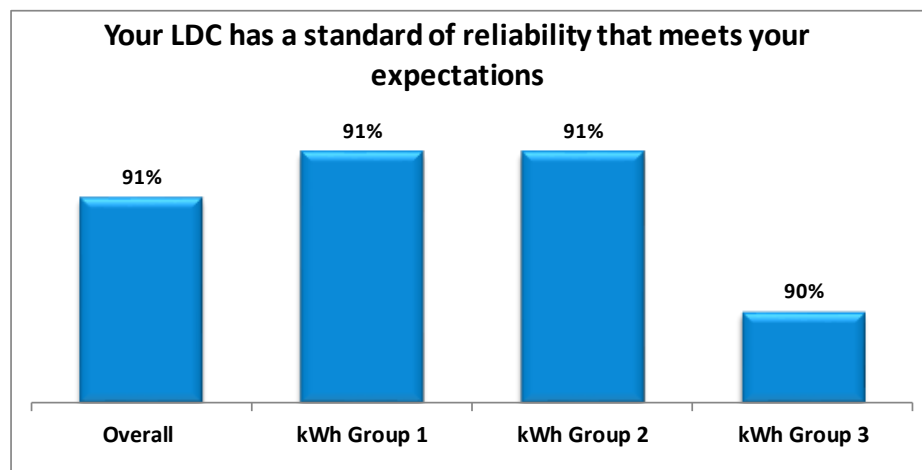
**38% of Hydro Ottawa respondents claimed they experienced an outage problem in the past 12 months.**

Like it or not, there will be times when the power goes off – and for reasons beyond the control of the LDC.

Percentage of Respondents indicating that they had a Blackout or Outage problem in the last 12 months			
	Hydro Ottawa	National	Ontario
<b>2019</b>	38%	44%	45%
<b>2018</b>	54%	39%	44%
<b>2017</b>	33%	37%	38%
<b>2016</b>	31%	46%	46%
<b>2015</b>	30%	53%	51%

Base: total respondents / (-) not a participant of the survey year

91% of Hydro Ottawa respondents agree ('strongly + somewhat') the utility's standard of reliability is consistent with their expectations.

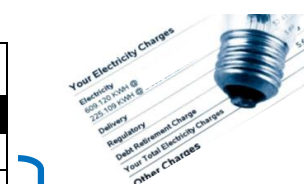


Base: total respondents

For nearly every business, the simple act of collecting payments from customers is quite complex. Organizations want to make it easy and convenient for customers to pay, so they offer multiple choices of payment types and channels. However, making it easy for the customer often makes it more complex—and costly—for the business and is certainly not without its problems or flaws.

Percentage of Respondents indicating that they had a Billing problem in the last 12 months			
	Hydro Ottawa	National	Ontario
<b>2019</b>	7%	9%	9%
<b>2018</b>	8%	9%	9%
<b>2017</b>	13%	12%	15%
<b>2016</b>	25%	15%	25%
<b>2015</b>	14%	9%	15%

Base: total respondents / (-) not a participant of the survey year



*Note: There has been a considerable drop in billing complaints since 2016 and 2017; a time when customers were angry about costs.*

The impact of poor billing on a utility's business is considerable, in terms of costs incurred handling customer queries and complaints. The quality of billing remains a driving force behind managing customer satisfaction and can help utilities reduce costs associated with customer service. By reducing the total number of calls to a utility by providing accurate bills that are easily understood, a utility stems the flow of billing-related complaints into its call-centre. However, customers have a different definition than their utility as to what constitutes a billing problem.

Types of Billing Problems	
Hydro Ottawa	
The amount owed was too high	55%
Complaint about rates or charges	25%
Wrong information on the bill	12%
Missed payment	12%
The bill was difficult to understand	8%
Did not receive bill	5%
Payment incorrectly recorded	5%
Fluctuations in billing	2%
The bill arrived late	2%

Base: total respondents with billing problems



25% of Hydro Ottawa respondents with an outage problem did contact the utility;

40% of Hydro Ottawa respondents with a billing problem did contact the utility.

First Contact Resolution (FCR) rates are an important metric for improving call center performance. The first step in improving “FCR” is to survey your front-line customer touch-points and understand what kind of assistance and information customers are seeking in these situations. Once you clearly understand what kinds of interactions are taking place at each of your initial customer touch-points, you can then take steps to improve those interactions.

Percentage of Respondents who contacted their utility and had their problem solved in the last 12 months	
Hydro Ottawa	
Yes	86%
No	12%

Base: total respondents with a problem who contacted their utility



Interestingly when customers do have a problem and contact their LDC and get the problem solved, their satisfaction ratings are very similar to the overall level of satisfaction that exists if not slightly higher; however, failing to deal or resolve a customer's problem causes satisfaction levels to drop.

SATISFACTION SCORES – Electricity customers' satisfaction			
Hydro Ottawa	Overall	Problems Solved	Problems Not Solved
Top 2 Boxes: 'very + fairly satisfied'	95%	90%	92%

Base: total respondents with a problem who contacted their utility

We believe a major challenge for most LDCs is about increasing their knowledge about their customers and how they prefer communications to take place. Most Customer Relationship Management (CRM) systems seem to be inadequate for providing this information about preferences.

# Communication when there is an Issue

Utilities need to know what response they are seeking from customers when planning their communications and outreach. Sending inserts with monthly bills that provide information to a customer is passive and not very effective. Although your customer audience is captive, a poorly targeted message is often ignored. Posting information on a website—unless a customer is actively searching for it—will likely not be found. Email blasts and social media campaigns will reach customers but may not necessarily lead to action. Such messages are typically read when in transit or multitasking, making them an afterthought. So, it often takes several pushes for these messages to resonate before action is taken. Successful marketing and messaging are about keeping communications simple, consistent, and continually reinforced.

## **Communication channels preferred by customers to receive notice about Billing Issue**

Billing issues have long been a major cause of customer inquiry and complaint. Not only are bills a key part of an LDC's revenue management processes, but they're also an essential element and touchpoint in their relationship with their customers. For many customers, it is one of the very few touchpoints they have with their LDC. Because of its nature, the bill is usually viewed by customers as a wholly negative communication. Therefore, when problems do occur, and the LDC must initiate contact with their customer, it would be beneficial to the process if customers were contacted via channels they most prefer.

Hydro Ottawa's customers' preferred method for Hydro Ottawa to contact them about billing issues are as follows:

Preferred method of communication to receive notice of a Billing Issue (Other than overdue/arrears)	
Hydro Ottawa	
Telephone	43%
Voice Mail	2%
Text	9%
Email	45%
Don't know	1%

Base: total respondents



Hydro Ottawa also wanted to better understand customers' preferred method of contact should there be a time sensitive billing issue such as being overdue or in arrears.

Preferred method of communication to receive notice of a time sensitive Billing Issue i.e. Overdue/Arrears	
Hydro Ottawa	
Mail	11%
Email	45%
Phone/Voice mail	29%
SMS/Text	14%
Don't know	1%

Base: total respondents

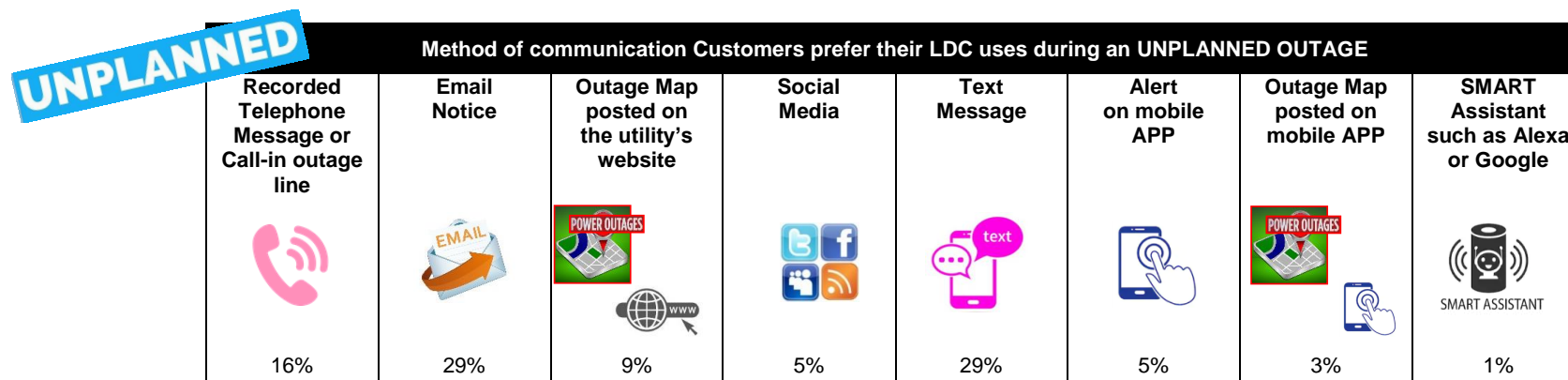


Effective communication is essential to provide good customer service, improve efficiency and reduce costs. LDCs must maximize the effectiveness of their communications and improve customer interactions consistently across some media channels and customer touch points.

### Communication during Unplanned Outages

In times of emergency, be they extreme weather events or major equipment failures that cause blackouts and unplanned outages, customer communication can help customers understand what to expect next and when disrupted electricity service might be restored. Early and effective communication helps increase confidence in and credibility of the electricity service provider.









Respondents were asked which communication channel they most preferred Hydro Ottawa to use *during an unplanned outage*.



Base: total respondents

Respondents were asked the preferred communication channel Hydro Ottawa should use **during a planned outage**; times when the utility needs to undertake works on their network (poles, wires, meters, transformers, substations, etc.) to maintain a safe and reliable supply.

**PLANNED**

Method of communication Customers prefer their LDC uses during a PLANNED OUTAGE							
Recorded Telephone Message or Call-in outage line	Email Notice	Outage Map posted on the utility's website	Social Media	Text Message	Alert on mobile APP	Outage Map posted on mobile APP	SMART Assistant such as Alexa or Google
							
15%	44%	3%	3%	25%	3%	1%	0%

Base: total respondents: Respondents stating 'Other': 4% mail/flyer

While there are many ways to communicate, information and messaging are most effective when delivered through channels preferred by customers. Whether it's text, email, or phone call, it's crucial to recognize that to make communications more effective, the LDC's messaging should be simple, clear, fact-based, and consistent.

Providing communication channels that are effective and meet customers' needs is key to improving the customer experience. To do this, Hydro Ottawa must understand how customers communicate with you, and how they would like Hydro Ottawa to communicate with them in the future. Knowing this will allow Hydro Ottawa

to: allocate resources where they are most needed, tailor services to meet customers' needs, and identify where improvements can be made.

However, while most customers appear to have the capacity and willingness to use digital channels, there are customers who do not access digital platforms for a variety of reasons, such as a lack of ability or resources or due to a preference for other channels. Hydro Ottawa will need to consider how these customers can be supported and encouraged to use digital services in the future.

Data from the UtilityPULSE database shows some real differences by age group as it relates to comfort levels with technology. For example, 8% of respondents in the 18 to 34 age group would access the outage map posted on a utility's website. But only 4% of those in the 55+ age category would access the outage map. 44% of the 18 to 34 age group would like a text message compared to 23% for respondents aged 55+.

In comparison, the results for accessing social media for information about unplanned outages are lower but there is still a difference. 7% of respondents aged 18 to 34 would look to social media for information versus 4% for respondents aged 55+.

# Communication and Services Measurement

Electric utilities across Canada are increasingly seeing the need to invest in aging infrastructure, new technologies, regulatory requirements, and a skilled workforce. They are addressing these needs to uphold their public service duty, all the while keeping in mind the need to communicate with their customers. Part of communication is the requirement of providing information and/or education to the public to raise the level of understanding surrounding an issue or topic that may be of practical concern to residents.

Consumer information is meant to attune consumers to certain problems [i.e., outage problems, etc.], create awareness, and educate [i.e., electricity safety, etc.] or even guide (influence) their behaviour [i.e., energy conservation, etc.].

Customers who are also consumers have additional needs for information and education. Survey respondents, who are bill payers, were asked about their level of satisfaction with the information provided by Hydro Ottawa on the following:



Satisfaction with information provided		
Top 2 Boxes: 'very + fairly satisfied'	Ontario LDCs	Hydro Ottawa
The quality of information available when outages occur	76%	76%
The electricity safety education provided to the public	72%	76%
The timeliness and relevance of the information for things such as planned outages, construction activity, tree trimming.	77%	76%

Base: An aggregate of respondents from 2019 participating LDCs / total respondents from the local utility

Communication Score		
	Ontario LDCs	Hydro Ottawa
Communication Score	79%	80%

Base: An aggregate of respondents from 2019 participating LDCs / total respondents from the local utility



Based on customer responses, Hydro Ottawa has achieved a score of 80% for communications.

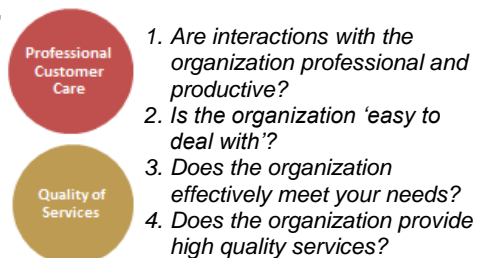
# Customer Experience Performance rating (CEPr)

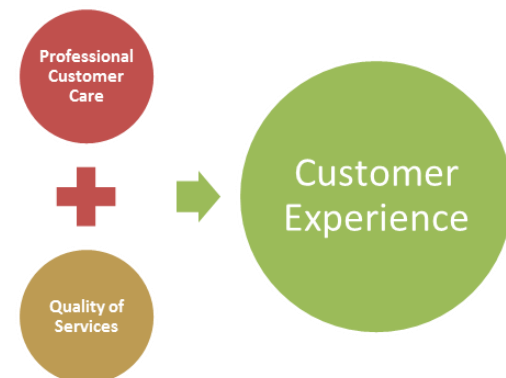
The CEPr score is an effectiveness rating and is affected by many dimensions of service. Every touchpoint with customers on the phone, website, or in-person influences what customers think and feel about the organization. While an excellent transaction today creates a positive experience, the perception created is future transactions will be excellent too. Of course, a negative transaction creates the perception that future transactions will be negative.

When the customer experience is strong, the opportunity to build loyalty is great. When the experience is a negative one, customers often conclude the organization doesn't care. When a customer believes the organization doesn't care, outrage and anger are a very real possibility.

Understanding your customer's expectations for service is the first step in providing an amazing customer experience. It is essential customer care call centers develop a comprehensive understanding of what

*At the heart of the CEPr are 4 central questions:*

- 
1. Are interactions with the organization professional and productive?
  2. Is the organization 'easy to deal with'?
  3. Does the organization effectively meet your needs?
  4. Does the organization provide high quality services?



customers expect from them, whether or not their needs are being met and how they can improve their service to meet their expectations.

Some of the factors which contribute to the overall customer experience:

- Delivering accessible and consistent customer service (multi-channel)
- Understanding customer expectations
- Maintaining timely resolution timelines
- Providing effective communication(s) according to customer needs
- Demonstrating responsiveness
- Speeding up problem resolution
- Conducting problem analysis to prevent recurring issues
- Easy to do business with
- Seeking customer feedback and following through on recommendations



Customer Experience Performance rating (CEPr)			
	Hydro Ottawa	National	Ontario
<b>CEPr: all respondents</b>	88%	85%	86%

Base: total respondents

The CEPr for Hydro Ottawa is 88%. This rating would suggest that a very large majority of customers have a belief they will have a good to excellent experience dealing with Hydro Ottawa professionals.

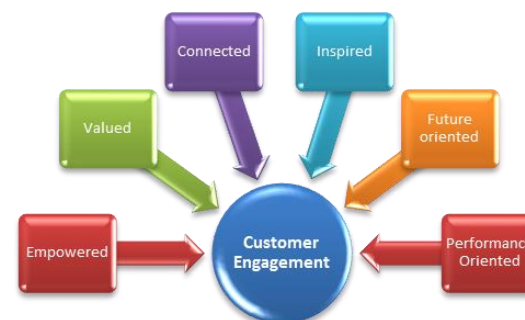
# Customer Centric Engagement Index (CCEI)

Customer engagement and customer satisfaction are very different measures. We believe generating high scores in customer engagement is more difficult than customer satisfaction. For example, a customer can be highly satisfied when the LDC reliability delivers electricity, bills the customer properly, and quickly deals with outages. Essentially when the LDC does what it promises to do, then satisfaction follows.

Customer engagement is about connecting with customers in ways to demonstrate the LDC has heard the customer, understands the customer's needs, wants, desires, and issues. When the LDC does demonstrate hearing and understanding, the result is higher levels of emotional connection, i.e., feelings that the people at the LDC care, respect, and value their customers or are prepared to go-out-of-their-way (if necessary) to help.

Customer engagement is often thought of as a series of activities involving the customer, such as conducting a survey, holding town hall type meetings, focus groups, etc. One could call these types of activities as the behaviour side of engagement. However, there is an emotional side to engagement.

UtilityPULSE has identified the six key dimensions of what defines customer engagement. They are: empowered, valued, connected,



inspired, future-oriented, and performance-oriented. Customer-centric engagement is a measure of “goodwill” towards the utility. The UP database does show Secure customers believe they are more highly engaged with their LDC than customers who are At Risk.

This survey also provides you with an emotional look at engagement. The UtilityPULSE CCEI is a gauge of the amount of goodwill which has been generated. High numbers in CCEI suggest there is a high level of goodwill amongst your customers – this is important for two reasons. First, when something goes awry for the utility, goodwill helps the utility to be resilient. Second, goodwill encourages active participation in requests to participate in engagement activities or program offerings from the utility.

The CCEI is a metric designed to get a more in-depth look at the attachment a customer has with your LDC and its brand. High levels of customer engagement (emotional) correlate strongly to high levels of Secure and Favourable customer numbers.

***Engagement is how customers think, feel, and act***

***towards the organization.*** As such, ensuring customers respond positively requires they are rationally satisfied with the services provided AND emotionally connected to your LDC and its brand. The more frequently and



consistently an organization's products and services can connect with a customer, especially on an emotional level, the stronger and deeper the customer becomes engaged with the organization.

Utility Customer Centric Engagement Index (CCEI)			
	Hydro Ottawa	National	Ontario
CCEI	87%	83%	83%

Base: total respondents

Customers who are less engaged, as measured by the CCEI, are more likely to let costs and/or price impact their perceptions of their LDC. Customers who are highly engaged are more inclined to look past costs and money issues and use a rational approach to make values-based decisions. Highly engaged customers have a stronger emotional connection to your utility. It's this emotional connection that drives commitment, loyalty, and advocacy.

Using the measures of Satisfaction and Engagement, the LDC's relationship with its customers would fall into one of four quadrants: Q1- low satisfaction/low engagement; Q2- high satisfaction/low engagement; Q3- low satisfaction/high engagement and Q4- high satisfaction/high engagement. Most LDCs would agree to have customers fall into the Q1 quadrant isn't good, and having customers fall into Q4 is ideal.

When LDCs have candid conversations with customers and employees about their joint and different needs & perspectives, the better, the LDC can be for creating an excellent place to do business with and to work.

# UtilityPULSE Report Card®

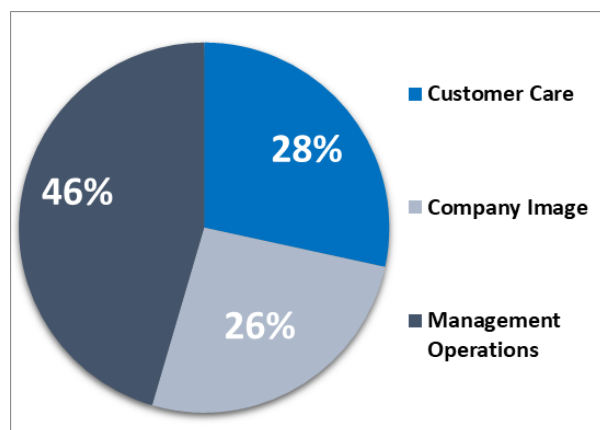
Simul's UtilityPULSE Report Card® is based on tens of thousands of customer interviews gathered over eighteen years. The purpose of the UtilityPULSE Report Card® is to provide electric utilities with a snapshot of performance – on the things customers deem to be important. Research has identified over 20 attributes, sorted into six topic categories (we call these drivers), which customers have used to describe their utility when they have been satisfied or very satisfied with their utility. These attributes form the nucleus, or base, from which “scores” are assigned. Customer satisfaction and loyalty also play a major role in the calculations.

There are two main dimensions of the UtilityPULSE Report Card® the first is customer psyche, and the other is customer perceptions about how the utility executes its business.

## **The Psyche of Customers**

Every utility has virtually the same responsibility – provide safe and reliable electricity – yet not all customers are the same. The following chart shows the weight or significance of each category to the customer when forming their overall impression of the utility. Three major themes, each with two major categories, make up the UtilityPULSE Report Card®. In effect, the Report Card provides feedback about how customers perceive the importance of each category.

### UtilityPULSE Report Card® Weighting



Base: weighting shown is based on 7,000+ respondents in the UtilityPULSE database Fall 2019

The UtilityPULSE Report Card® also provides customer perceptions about how your utility executes or performs its responsibilities. This is different, very different, from what a customer might say about a major concern or worry they have about electricity. As our survey has shown since its inception, the primary suggestion for improvement is “reduce prices,” which is also a major concern that your customers have about municipal taxes, gas for the vehicle, and other utilities.

Readers of this report should note that the categories and drivers are interdependent. This means, for example, failure to provide high levels of power quality and reliability will have a negative impact on customer perceptions as it relates to customer service. Customer care, when it doesn't meet customer expectations has a negative impact on Company Image, etc.

Defining the categories and major drivers:

**Category: Customer Care**

**Drivers: Price and Value; Customer Service**

Just because everyone likes good customer care, that in and by itself, is not a reason to provide it – though it may be important to do so. In highly competitive industries, good customer service may be a differentiating factor. The case for electric utilities is simple, high levels of customer care result in less work (hence cost) of responding to customer inquiries and higher levels of acceptance of the utility's actions.

***Price and Value:***

Customers have to purchase electricity because life and lifestyle depend on it. This driver measures customer perceptions as to whether the total costs of electricity represent good value and whether the utility is seen as working in the best interests of its customers as it relates to keeping costs affordable.

***Customer Service:***

Customers do have needs, and every now and again will interact with their utility. How the utility handles various customers' requests and concerns is what this driver is all about. Promptly answering inquiries, providing sound information, keeping customers informed and doing so in a professional manner are the major components of this driver.

## **Category: Company Image**

### **Drivers: Company Leadership; Corporate Stewardship**

Utilities have an image even if they do not undertake any activities to try to build it. A company's image is both a simple and complex concept. It is simple because companies do create images that are easily described and recognized by their target customers. It is complex because it takes many discrete elements to create an image, which includes, but is not limited to: advertising, marketing communications, publicity, service offering, and pricing.

An electric utility trying to manage its image has one more challenge to deal with, and that is the electric industry itself. There are so many players, residential customers (in particular) don't know who does what or who is responsible for what. So, when there are political or regulatory announcements, the local utility is often swept up into the collective reaction of the population.

#### ***Company Leadership***

This driver is comprised of customer perceptions as it relates to industry leadership, keeping promises, and being a respected company in the community.

#### ***Corporate Stewardship***

Customers rely on electricity and want to know their utility is both a trusted and credible organization that is well managed, accountable, socially responsible and has its financial house in order.

**Category: Management Operations**

**Drivers: Operational Effectiveness; Power Quality and Reliability**

Electrical power is the primary product utilities provide their customers. Customers have very high expectations that the power will be there when they need it. Customers have little tolerance for outages. The reality is, every utility must get this part right...no excuses. It is the utility's core business. This category and its drivers are the most important for fulfilling the rational needs of a utility's customers.

***Operational Effectiveness***

This driver measures customers' perceptions as they relate to ensuring their utility runs smoothly. Attributes such as accurate billing and meter reading, completing service work in a professional and timely manner, and maintaining equipment in good repair are deemed as important to customers.

***Power Quality and Reliability***

Power outages are a fact of life – and customers know it. They expect their utility to provide consistent, reliable electricity, handle outages and restore power quickly and make using electricity safely an important priority.

Hydro Ottawa's UtilityPULSE Report Card®				
Performance				
	CATEGORY	Hydro Ottawa	National	Ontario
1	<b>Customer Care</b>	<b>A</b>	<b>B+</b>	<b>B+</b>
	Price and Value	B+	B+	B+
	Customer Service	A	A	A
2	<b>Company Image</b>	<b>A</b>	<b>A</b>	<b>A</b>
	Company Leadership	A	A	A
	Corporate Stewardship	A	A	A
3	<b>Management Operations</b>	<b>A</b>	<b>A</b>	<b>A</b>
	Operational Effectiveness	A	A	A
	Power Quality and Reliability	A+	A	A
<b>OVERALL</b>		<b>A</b>	<b>A</b>	<b>A</b>

Base: total respondents

As the UtilityPULSE Report Card® shows, the total customer experience with an electric utility is defined as more than “keeping the lights on.” Customers deal with your utility every day for a variety of reasons, most likely because they need someone to help them solve a problem, answer a question or take their order for service. All your employees, from customer service representatives to linemen, leave a lasting impression on the customers they interact with. In effect, there are many moments of truth. Moments of truth are every customer touchpoint a utility has with its customers. Therefore, managing these moments of truth creates higher levels of Secure customers while reducing the number of At Risk customers that exist.

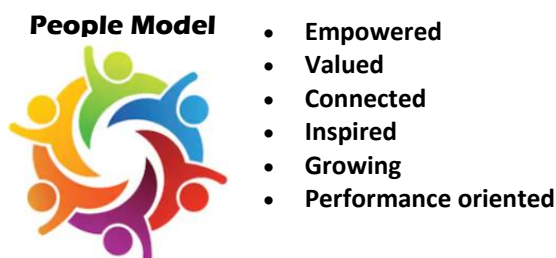
It's the small things done consistently that matter: Things like greeting every customer, whether on the phone or in person, in a friendly and helpful manner. Things like listening to the customer's needs, providing solutions to their problems, and showing appreciation to the customer for their business.

Utilities now recognize customer communications as a valuable aspect of their business. The better a utility communicates with customers in a manner that speaks to them, the more satisfied they are with their overall service. “Sending out information” is not the same as having a “conversation” with a customer. We believe it is increasingly important to channel your communications to the various customer segments which exist.

Employees – in every area – play a critical role in customer service success. Consequently, how they feel about their job responsibilities and role in the company will be communicated indirectly through the level of service which they provide customers with whom they interact. The reality is engaged employees are the key to excellent customer care.

Our survey work with employees shows there are many elements of organizational culture to support the people model needed to achieve high levels of engagement.

Our research has identified 6 main drivers which promote and support people giving their best:



There are 12 key processes from “attracting employees” to “saying goodbye to employees” are part of your people model to get the best performance from every employee.

We believe taking the time to understand the difference between employee satisfaction and organizational culture is worthwhile from a resourcing perspective and a people development perspective. Every organization has a culture – we believe it is a leadership imperative to install and maintain a culture which ensures you attain the achievements and successes of your utility’s many investments in people, technology, and equipment. It is true, organization culture affects everyone, and everyone affects organization culture.

# The Loyalty Factor

If a customer is satisfied, it doesn't necessarily mean he or she is loyal. Satisfaction is about fulfilling promises/expectations; loyalty goes way beyond that by creating exceptional experiences and long-lasting relationships. There is a reason why marketing campaigns strive to build brand loyalty, not brand satisfaction. Measuring customer loyalty in an industry where many customers don't have a choice of providers doesn't make sense. Or does it?

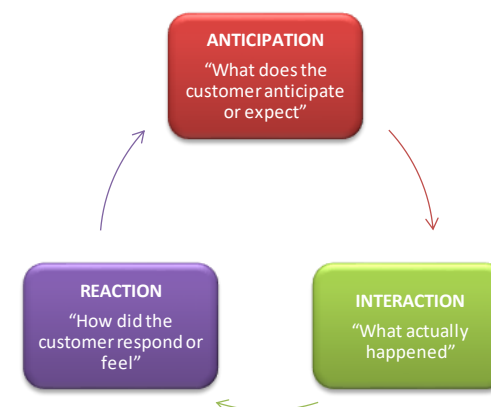
The answer depends on how you define "customer loyalty."

Private industry often equates customer loyalty with basic customer retention. If a customer continues to do business with a company, the customer is, by definition, considered to be loyal. If this definition were applied to many companies in the utility industry, all customers would automatically be considered loyal. As such, measuring customer loyalty would appear to be unnecessary.

Natural monopolies (like LDCs) are not really different in what they should measure except that trying to determine which customers are "loyal" or "at-risk" is not about their future behaviour but more about their "attitudinal" loyalty (are they advocates?).



Customer Service, when done well, promotes satisfaction which builds the foundation towards loyalty. Whether a customer is loyal and/or satisfied will be determined by three realities: ANTICIPATION – what your customer anticipates or expects; INTERACTION – what actually happened with/to the customer; and REACTION – how did the customer respond and how did it ultimately make the customer feel.



Perhaps a better or more relevant way for utilities to approach the definition of customer loyalty is to expand further how they think about loyalty. Consider the following definition: Customer loyalty is an emotional disposition on the part of the customer, which affects the way(s) in which the customer (consistently) interacts, responds, or reacts towards the company – its products & services and its brand.

So, what does it mean to respond favourably to a company? At a basic level, this can mean choosing to remain a customer. As previously mentioned, however, this is essentially a non-issue for many utility companies. It then becomes necessary to think beyond just customer retention. One needs to consider other ways in which customers can respond favourably toward a company.

**Some Tips to build loyalty:**

- ✓ Solve problems quickly
- ✓ Treat customers right
- ✓ Listen to complaints
- ✓ Be personal; create a great experience
- ✓ Friendly customer service
- ✓ Accessible information or help
- ✓ Good reputation
- ✓ Demonstrate you care

Other favourable responses or behaviours can be classified into one of three categories that reflect the concept of customer loyalty:

- Participation
- Compliance or Influence
- Advocacy

Specific examples of potential participatory behaviour in the electric utility industry include:

- Signing up for programs which help the customer reduce or manage their energy consumption
- Using the utility as a consultant when selecting energy products and services from a third party
- Participating in pilot programs or research studies.

Specific examples of potential compliance or influence behaviours utility customers might exhibit include:

- Seeking the utility's advice or expertise on an energy-related issue
- Voluntarily cutting back on electricity usage if the utility advised the customer to do so
- Accepting the utility's energy advice or referrals to energy contractors or equipment
- Being influenced by the utility's opinion regarding energy- management advice, equipment, or technologies
- Providing personal information which enables the utility to better serve the customer
- Paying bills online.

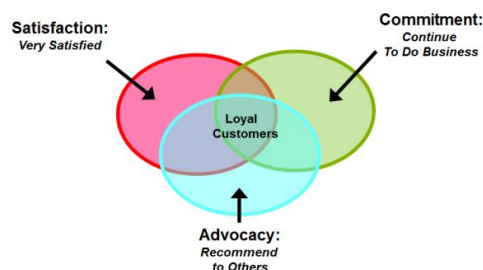
Creating customer advocates can be especially important for a company in a regulated industry. In the absence of customer advocates, or worse, in a situation where customers speak unfavourably about a company or actively work to support issues that are counter to those the company supports, companies can suffer a variety of negative consequences like increased business costs, lawsuits, fines, and construction delays. For an electric utility, specific examples of potential advocacy behaviour include:

- Supporting the utility's positions or actions on energy-related public issues, including the environment
- Supporting the utility's position on the location and construction of facilities
- Providing testimonials about positive experiences with the utility.

In sum, loyal behaviour in the utility industry may not be as evident as it is in a more competitive environment. Measuring customer loyalty in a generally non-competitive industry requires one to think about loyalty in non-traditional ways. Customer loyalty is an intangible asset which has positive consequences or outcomes associated with it no matter what the industry. Properly measuring loyalty among utility customers requires thoughtful probing to thoroughly identify the range of participation, compliance, and advocacy behaviours that will ultimately benefit the company in meaningful ways and foster happier and more loyal customers.

**Loyalty is driven primarily by a company's interaction with its customers and how well it delivers on their wants and needs.**

### Customer Loyalty Model



**Loyalty is based on likelihood to:**

- **Satisfaction:** overall satisfaction
- **Commitment:** continue as a customer
- **Advocacy:** willingness to recommend

The UtilityPULSE Customer Loyalty Performance Score segments customers into four groups: **Secure** – the most loyal - **Still Favorable**, **Indifferent**, and **At risk**.

**Secure** customers are “very satisfied” overall with their local electric utility. They have a very high emotional connection with their utility and definitely would recommend their local utility.

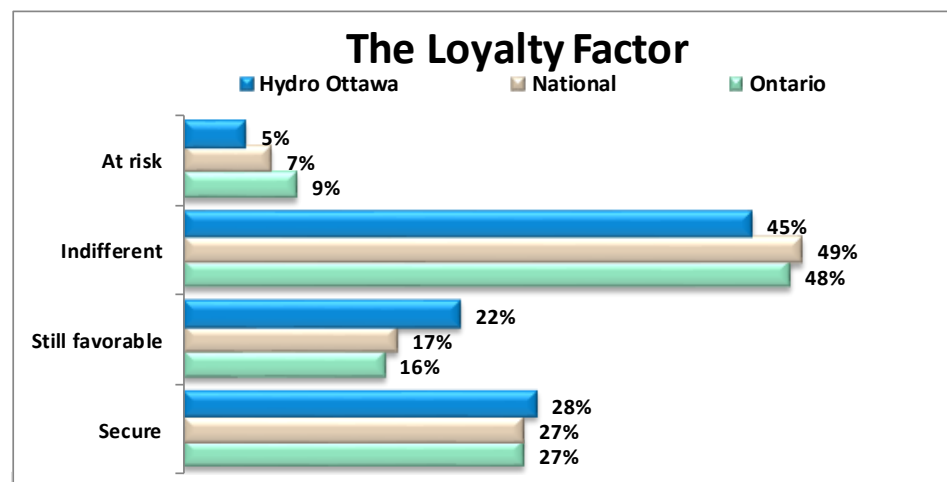
**Still favorable** customers are “very satisfied” overall, “definitely” or “probably” would recommend their local utility and not switch if they could.

**Indifferent** customers are less satisfied overall than secure and still-favorable customers and less inclined to recommend their local utility or say they would not switch.

**At risk** customers, who are “very dissatisfied” with their electric utility, “definitely” would switch and “definitely” would not recommend it.

Customer Loyalty Groups				
	Secure	Favorable	Indifferent	At Risk
Hydro Ottawa				
2019	28%	22%	45%	5%
2018	32%	15%	46%	7%
2017	20%	13%	54%	12%
2016	15%	10%	56%	19%
2015	15%	8%	63%	14%

Base: total respondents / (-) not a participant of the survey year



Customer Loyalty Groups				
	Secure	Favorable	Indifferent	At Risk
Ontario				
2019	27%	16%	48%	9%
2018	20%	16%	50%	13%
2017	19%	13%	52%	17%
2016	17%	13%	54%	16%
2015	17%	11%	61%	11%
National				
2019	27%	17%	49%	7%
2018	24%	15%	51%	10%
2017	21%	16%	50%	13%
2016	23%	12%	54%	11%
2015	18%	11%	61%	10%

Base: total respondents

# Customer commitment

Customer loyalty is a term used to embrace a range of customer attitudes and behaviours. One of the metrics used to gauge loyalty is the measure of **retention**, or intention to buy again; this loyalty attitude is termed **commitment**. For LDCs, commitment is not about behaviour; it is about attitude, i.e., do they want to remain your customer.

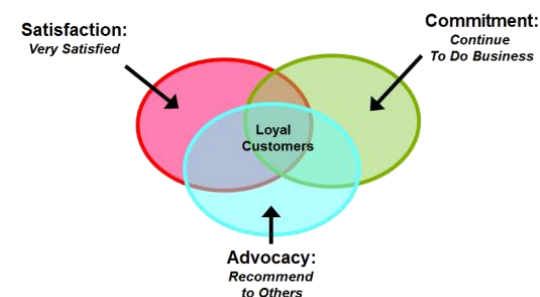
Customer commitment is a very important driver of customer loyalty in the electricity service industry. In a similar way to trust, commitment is considered an important ingredient in successful relationships. In simpler terms, commitment refers to the motivation to continue to do business with and maintain a relationship with a business partner, i.e., the local utility.

For electric utilities, this measurement is about identifying the number of customers who feel they “want to” vs. “have to” do business with you.

Potential benefits of commitment may include word of mouth communications - an important aspect of attitudinal loyalty. Committed customers have been known to demonstrate several beneficial behaviours; for example, committed customers tend to:

- Come to you. One of the key benefits of establishing a good level of customer loyalty is customers will come to you when they need a product or service

## Customer Loyalty Model



- Validate information received from 3<sup>rd</sup> parties with information and expertise that you have
- Try new products/initiatives
- Perhaps they will even trust you when recommendations are made
- Be more price tolerant
- More receptivity of utility viewpoints on various issues
- More tolerance of errors or issues which inevitably take a swipe at the utility
- Stronger levels of perception regarding how the utility is managed.



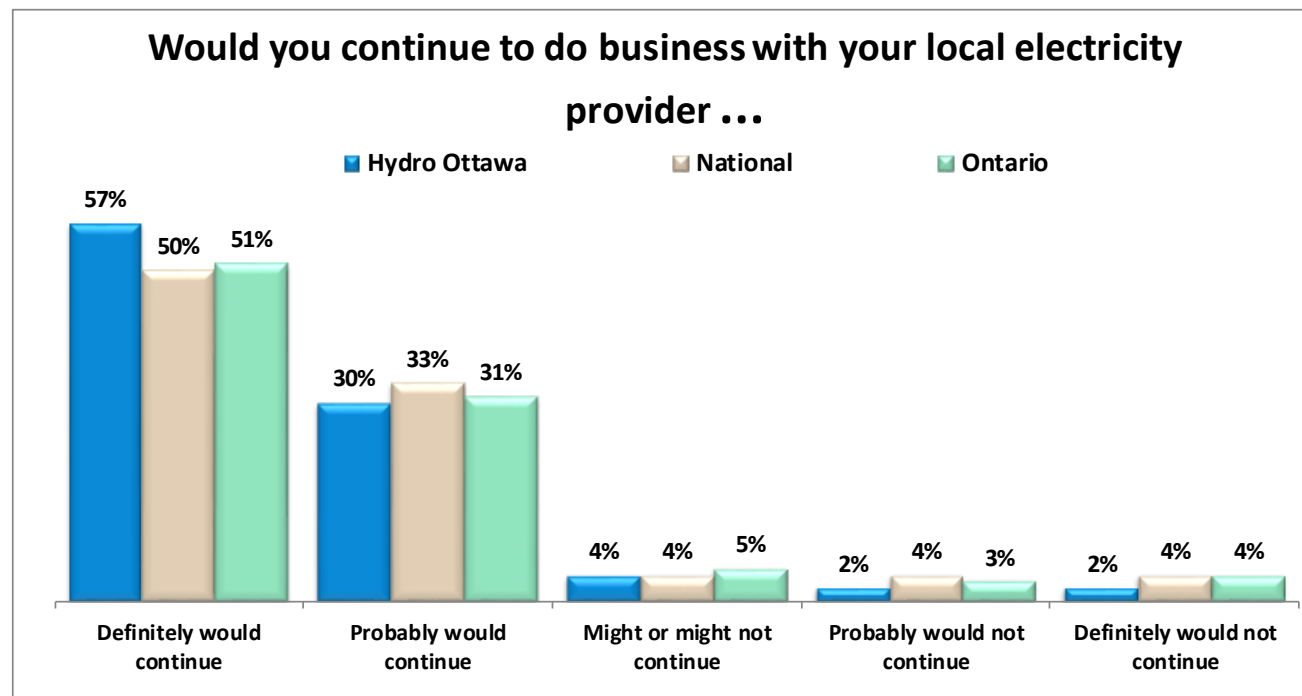
Though customers cannot physically leave you, they can emotionally leave you, and when they do, it becomes an extreme challenge to garner their participation or support for utility initiatives.

Electricity customers' loyalty – ... Is a company that you would like to continue to do business with			
	Hydro Ottawa	National	Ontario
<b>Top 2 Boxes: 'Definitely + Probably' would continue</b>	87%	83%	82%
<b>Definitely would continue</b>	57%	50%	51%
<b>Probably would continue</b>	30%	33%	31%
<b>Might or might not continue</b>	4%	4%	5%
<b>Probably would not continue</b>	2%	4%	3%
<b>Definitely would not continue</b>	2%	4%	4%

Base: total respondents

Electricity customers' loyalty – ... Is a company that you would like to continue to do business with					
Hydro Ottawa	2019	2018	2017	2016	2015
<b>Top 2 boxes:</b> <b>'Definitely + Probably' would continue</b>	87%	84%	79%	70%	73%

Base: total respondents / (-) not a participant of the survey year



Base: total respondents

## Word of mouth

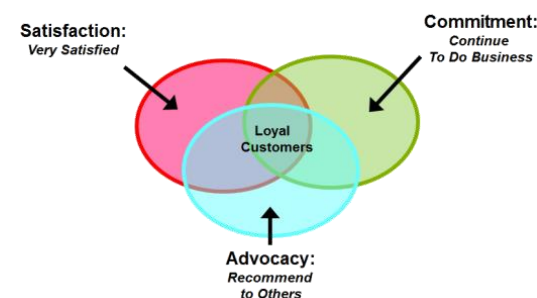


### BRAND ADVOCATE

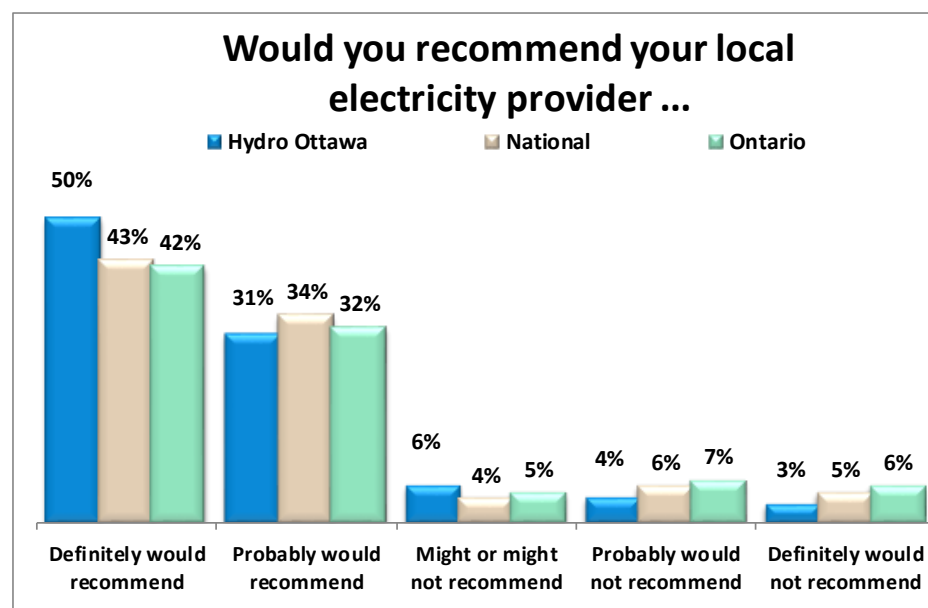
Advocacy is one of the metrics measured in determining customer loyalty. Essentially, companies believe a loyal customer is one who is spreading the value of the business to others, leading new people to the business, and helping the company grow. Customer referrals, endorsements and spreading the word are extremely important forms of customer behaviour. For LDCs this is about generating positive referents about the LDC as a relevant and valuable enterprise.

When customers are loyal to a company, product, or service, they not only are more likely to purchase from the company again, but they are more likely to recommend it to others – to openly share their positive feelings and experiences with others. In today's world, thanks to the Internet, they can tell and influence millions of people. The same holds true, if not more so, when customers are disloyal. Disgruntled customers could share their negative experiences with an ever-widening audience, jeopardizing a company's reputation and resulting in fewer engaged customers and/or customers who are Favourable or Secure. Secure customers typically are advocates, and they are deeply connected and brand-involved.

### Customer Loyalty Model



Would you tell me if you agree or disagree with the following statement? Hydro Ottawa is a company that you would recommend to a friend or colleague ...



Base: total respondents

Word of mouth communication is a very powerful form of communication and influence. When customers are speaking to other customers (or their peers), it is more credible; it goes through less perceptual filters and can enhance the view of services or products better than marketing communication.

*There are two forms of word of mouth which utilities need to understand. The first is Experience-based word of mouth which is the most common and most powerful form. It results from a customer's direct experience with the utility or the re-statement of a direct experience from a trusted source.*

*The second is Relay-based word of mouth. This is when customers pass along important messages to others based on what they have learned through the more traditional forms of communications. For example, if the utility was communicating an offer for "free LED lights" chances are high the offer will be "relayed" to others through word of mouth.*

*For an electric utility, specific examples of potential positive advocacy behaviour include:*

- *Recommending other customers specifically locate in the geographic area which is serviced by that utility*
- *Supporting the utility's positions or actions on energy-related public issues, including the environment*
- *Supporting the utility's position on the location and construction of facilities*
- *Providing testimonials about positive experiences with the utility*

Electricity customers' loyalty – ... is a company that you would recommend to a friend or colleague			
	Hydro Ottawa	National	Ontario
<b>Top 2 boxes: 'Definitely + Probably' would recommend</b>	80%	77%	74%
<b>Definitely would recommend</b>	50%	43%	42%
<b>Probably would recommend</b>	31%	34%	32%
<b>Might or might not recommend</b>	6%	4%	5%
<b>Probably would not recommend</b>	4%	6%	7%
<b>Definitely would not recommend</b>	3%	5%	6%

Base: total respondents

Electricity customers' loyalty – is a company that you would recommend to a friend or colleague					
Hydro Ottawa	2019	2018	2017	2016	2015
<b>Top 2 boxes: 'Definitely + Probably' would recommend</b>	80%	79%	68%	61%	68%

Base: total respondents / (-) not a participant of the survey year

Our survey research, as well as theory, backs up the fact that if your customers are willing to endorse you and put their reputation on the line to recommend you, they also trust you and are satisfied with the service you are providing.

## Corporate image

Although reputation is an intangible concept, a strong corporate image makes it easier to capture the attention of more customers – more often. Also, to be seen as an independent organization, thereby making it easier to introduce new ideas. Employees appreciate a strong corporate image.

Attributes measured in the annual UtilityPULSE survey which are strongly linked to a utility's image include:

Attributes linked to Company Image and Reputation			
	Hydro Ottawa	National	Ontario
<b>Respected in the community</b>	89%	85%	85%
<b>Keeps its promises to its customers and community</b>	87%	82%	83%
<b>Adapts well to changes in customer expectations</b>	78%	75%	74%
<b>Pro-active in communicating changes and issues affecting customers</b>	83%	77%	78%
<b>Customer-focused and treats customers as if they're valued</b>	84%	82%	80%
<b>Is a socially responsible company</b>	82%	82%	82%
<b>Company to recommend</b>	86%	83%	82%
<b>Delivers on its service commitments</b>	90%	88%	88%
<b>Is 'easy to do business with'</b>	85%	83%	83%
<b>Operates a cost-effective electricity system</b>	79%	72%	72%
<b>Overall the utility provides excellent quality services</b>	89%	86%	87%
<b>Is a trusted and trustworthy company</b>	88%	85%	85%

Base: total respondents with an opinion

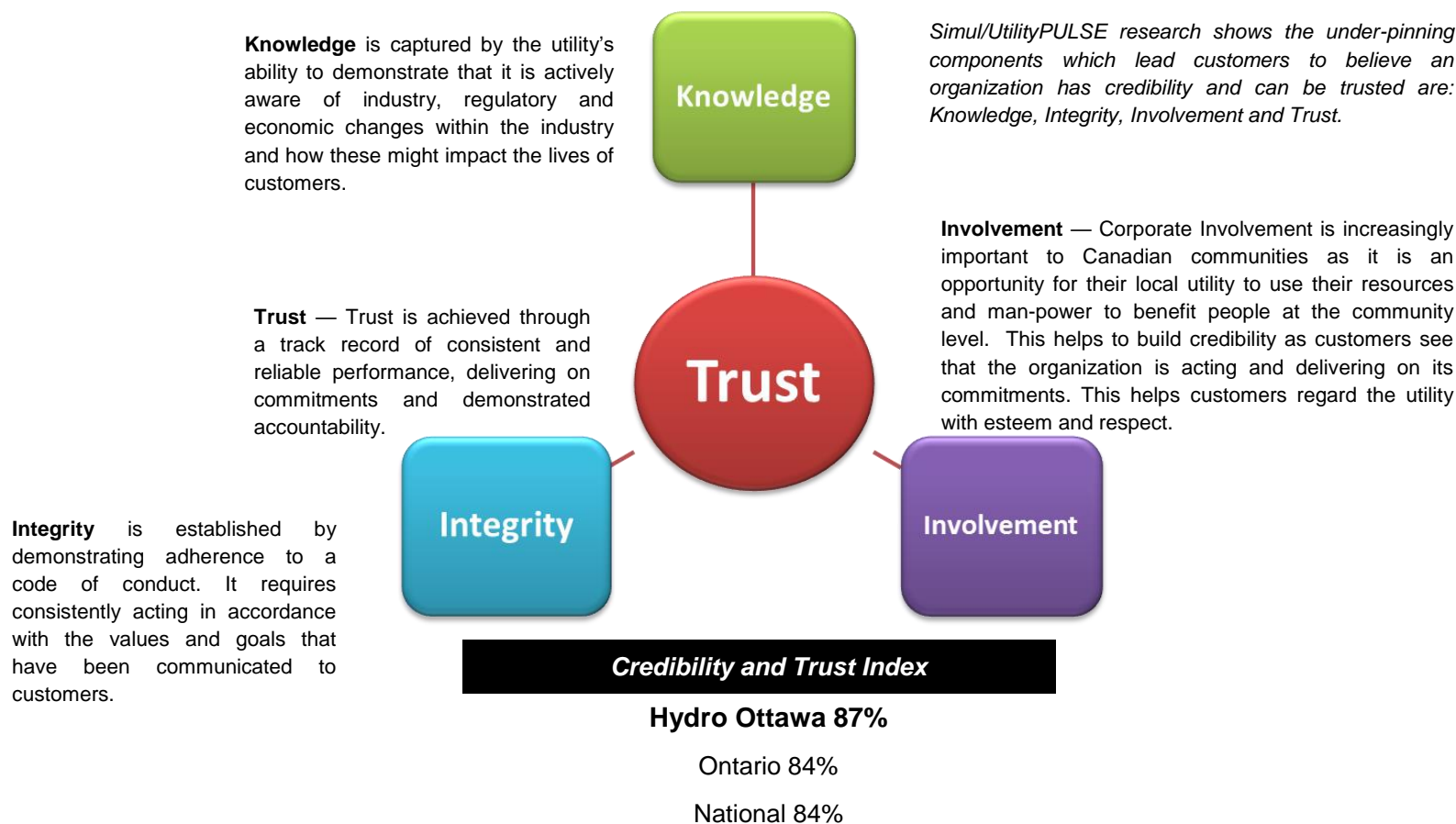
# Corporate Credibility & Trust

Credibility is a judgment customers and others make about whether a person or an organization has the competencies and experience to do what they promise to do. Trust is a feeling or belief that a person or an organization they are dealing with is doing so in an honest, open manner with no hidden agendas. How customers and other stakeholders respond to your communications is affected by the person's perception. Without credibility and trust, everything you say to customers, employees, and others can be questioned.

Of paramount importance to maintaining credibility & trust is effectively managing expectations—customers, employees, and other stakeholders that matter to the business of the LDC. A key to this is open and honest communications. An important benefit of having a high degree of credibility & trust is, authentic collaboration can become a reality. Credibility & trust is a powerful currency for building relationships. Credibility & trust are outcomes based on what the LDC does, not what it might be doing.

Attributes strongly linked to Credibility & Trust			
	Hydro Ottawa	National	Ontario
Overall the utility provides excellent quality services	89%	86%	87%
Keeps its promises to customers and the community	87%	82%	83%
Customer-focused and treats customers as if they're valued	84%	82%	80%
Is a trusted and trustworthy company	88%	85%	85%

Base: total respondents with an opinion



# How can service to customers be improved?

The electric utility industry is in a state of continuous transformation. External factors - including shifts in governmental policies, a global thrust to conserve energy, advances in new technologies, and power generation are driving massive changes throughout the industry. LDCs of today and the future can also expect a much more intense level of customer involvement. UtilityPULSE research shows customers want to be heard.

Despite all the talk today centered on quality, new processes and systems, continuous improvement, and costs, unless all of this is aimed at obtaining customer satisfaction, it will not be worth much over the longer term.

Qualitative questions typically do not provide statistical richness, which is associated with a quantitative question. However, they do provide words, phrases, insights into the thinking patterns and/or feelings of customers. This means qualitative questions have an interpretive richness that assists in deriving meaning from the survey. The broader range of suggestions we are getting when conducting the survey is a sign the customer base is becoming more and more segmented. Not all customers are the same.

The struggle for electric utilities is finding the right balance between cost-effective, technology-enabled approaches to customer services and person-to-person contact.

Customers want their utility to focus on what matters most; offer products and services which “make a difference in their life,” “gives them peace of mind” and “delivered by trusted and credible people.”

*We are interested in knowing what you think are the one or two most important things Hydro Ottawa could do to improve service to their customers?*

One or two most important things 'your local utility' could do to improve service	
	Hydro Ottawa
Better prices / lower rates	62%
Better communications / be pro-active	13%
Improve / simplify / clarify billing	10%
Better information on outages when they occur	10%
Better power reliability / less power outages	8%
Be more efficient / cost-effective	7%
Information & incentives on energy conservation	7%
Restore power faster	7%
Eliminate SMART meters	3%
End Time of Use	3%
Improve customer service/reliability of staff	2%

Base: total respondents with suggestions

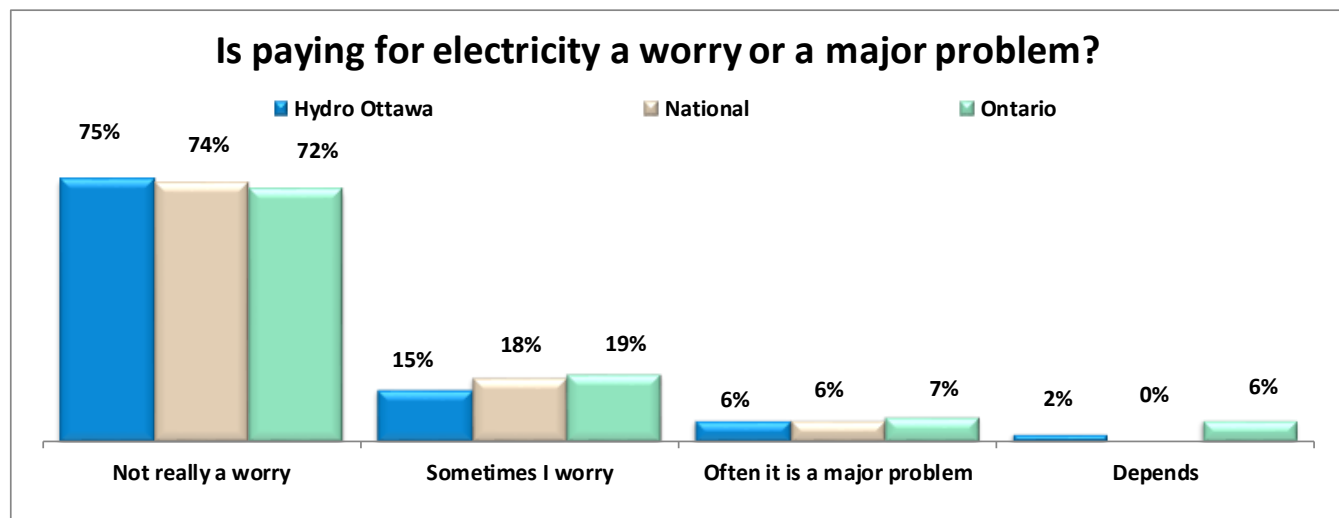
# What do customers think about electricity costs?

At the height of the 'anger' stage for many customers, the UtilityPULSE database showed 31% of survey respondents said they sometimes worried about paying their bill. Customers felt they were paying more but not getting more, especially disconcerting when wages and inflation were hovering around the 2% mark. Five years earlier that number was 21%. The 2017 25% reduction in costs, coupled with a promise to further reduce the cost and a better economy has helped to move the number back to 21% in Ontario. This is a huge change.

*Next, I am going to read several statements people might use about paying for their electricity. Which one comes closest to your own feelings, even if none is exactly right? Paying for electricity is not really a worry, Sometimes I worry about finding the money to pay for electricity, or Paying for electricity is often a major problem?*

Is paying for electricity a worry or a major problem?				
	Not a worry	Sometimes	Often	Depends
Hydro Ottawa	75%	15%	6%	2%
National	74%	18%	6%	0%
Ontario	72%	19%	7%	6%

Base: total respondents



Base: total respondents

Is paying for electricity a worry or a major problem?				
	Not a worry	Sometimes	Often	Depends
Hydro Ottawa				
<\$30K	56%	17%	22%	2%
\$30K<\$75K	65%	23%	7%	2%
\$75K+	84%	10%	4%	1%

Base: total respondents

Is paying for electricity a worry or a major problem?				
	Not a worry	Sometimes	Often	Depends
<b>Ontario</b>				
<b>2019</b>	72%	19%	7%	6%
<b>2018</b>	68%	21%	8%	1%
<b>2017</b>	61%	26%	10%	1%
<b>2016</b>	49%	31%	16%	3%
<b>2015</b>	59%	25%	10%	2%
<b>National</b>				
<b>2019</b>	74%	18%	6%	0%
<b>2018</b>	71%	18%	7%	0%
<b>2017</b>	67%	19%	11%	1%
<b>2016</b>	58%	29%	10%	2%
<b>2015</b>	67%	22%	8%	2%

Base: Ontario and National Benchmarks

## What do small commercial customers think?

Based on data in the UtilityPULSE database, small commercial customers have relatively similar views about their utility. The tables associated with this report will contain your LDC's specific information as it relates to residential and commercial customers. A word of caution, smaller data samples create greater swings or spreads in the data, hence mitigating the effect of a small data sample by using the UP database.

An area of concern is about the LDC's ability to "target" its communications to the type of



business. Beyond having a contact telephone number, company name, and address, there isn't much "knowledge" about the small commercial customer. In a time when "targeted" communication is important, knowing the type of category of small commercial accounts would assist LDCs in delivering meaningful messages in an effective way. This

### **Small Commercial Customer (General Service < 50kW Demand)**

A small commercial customer is defined by the OEB as a non-residential customer in a less than 50 kW demand rate class. These customers are similar to the residential customer in that their bill does not have a demand component to it and their charges are based upon KWH of consumption. Most of these customers would occupy small storefront locations or offices

could be particularly important in the area of energy conservation, i.e., pulling together messages and programs for specific types of businesses. After all, a small restaurant is different from a small accounting office.

Satisfaction: Pre & Post		
Satisfaction (Top 2 Boxes: 'very + somewhat satisfied')	Residential	Commercial
Initially	93%	95%
End of Interview	93%	95%

Base: total respondents from the 2019 UtilityPULSE Database



As it relates to the six attributes associated with customer service:

Very or fairly satisfied with...	Residential	Commercial
The time it took to contact someone	76%	84%
The time it took someone to deal with your problem	76%	79%
The helpfulness of the staff who dealt with your problem	79%	86%
The knowledge of the staff who dealt with your problem	77%	86%
The level of courtesy of the staff who dealt with your problem	83%	91%
The quality of information provided by the staff member	76%	84%

Base: total respondents from the 2019 UtilityPULSE Database

Killer B's: Outages & Bills problems		
	Residential	Commercial
Respondents with outage problems	35%	27%
Respondents with billing problems	8%	8%

Base: total respondents from the 2019 UtilityPULSE Database

Overall satisfaction with most recent experience		
	Residential	Commercial
Top 2 Boxes: 'very + somewhat satisfied'	80%	86%
Bottom 2 Boxes: 'somewhat + very dissatisfied'	17%	13%

Base: total respondents from the 2019 UtilityPULSE Database

Comparisons between Residential and Commercial		
Loyalty Groups	Residential	Commercial
Secure	31%	34%
Still Favourable	19%	22%
Indifferent	45%	39%
At risk	6%	5%

Base: total respondents from the 2019 UtilityPULSE Database

Loyalty Model Factors		
	Residential	Commercial
Very/somewhat satisfied	93%	95%
Definitely/probably would continue	87%	89%
Definitely/probably would recommend	81%	85%

Base: total respondents from the 2019 UtilityPULSE Database

Important attributes which describe operational effectiveness		
	Residential	Commercial
Provides consistent, reliable electricity	92%	95%
Delivers on its service commitments to customers	90%	92%
Accurate billing	89%	92%
Quickly handles outages and restores power	91%	91%
Makes electrical safety a top priority	89%	93%
Is efficient at managing the electricity distribution system	88%	90%
Is a company that is 'easy to do business with'	88%	89%
Operates a cost-effective electricity distribution system	78%	80%
Standard of reliability meets expectations	91%	94%

Base: total respondents from the 2019 UtilityPULSE Database with an opinion

Important attributes which shape perceptions about service quality and value		
	Residential	Commercial
Is pro-active in communicating changes and issues which may affect customers	82%	84%
Provides good value for money	77%	76%
Customer-focused and treats customers as if they're valued	84%	85%
Deals professionally with customers' problems	88%	90%
Spends money prudently	83%	84%
Quickly deals with issues that affect customers	86%	89%
Provides information and tools to help manage electricity consumption	84%	82%
Provides information to help customers reduce their electricity costs	81%	78%
The cost of electricity is reasonable when compared to other utilities	69%	69%

Base: total respondents from the 2019 UtilityPULSE Database with an opinion

Important attributes which shape perceptions about corporate image		
	Residential	Commercial
Is a respected company in the community	88%	91%
Keeps its promises to customers and the community	86%	87%
Is a socially responsible company	86%	86%
Is a trusted and trustworthy company	89%	90%
Adapts well to changes in customer expectations	81%	82%
Overall the utility provides excellent quality services	89%	91%

Base: total respondents from the 2019 UtilityPULSE Database with an opinion

Preferred method of communication to receive notice of a billing issue		
	Residential	Commercial
Telephone	57%	55%
Voice Mail	2%	2%
Text	8%	4%
Email	33%	39%
Don't know	1%	1%

Base: total respondents from the 2019 UtilityPULSE Database

Method of communication Customers prefer their LDC uses during an UNPLANNED OUTAGE		
	Residential	Commercial
Recorded telephone message	34%	31%
Email notice	19%	29%
Posted on utility's website	4%	6%
Social media	5%	5%
Local radio	5%	5%
Local TV	3%	1%
Text message	25%	19%
Alert on APP	2%	2%

Base: total respondents from the 2019 UtilityPULSE Database

Priority Planning within the next 5 years		
Top 2 Boxes: 'very high + high priority'	Residential	Commercial
Investing more in the electricity grid to reduce outages	73%	80%
Burying overhead wires	53%	59%
Developing a SMART phone application to allow you to view usage and pay your bill	48%	46%
Pro-actively maintaining and upgrading equipment	87%	93%
Providing sponsorships to local community causes	50%	44%
Making better use of social media (such as Twitter, Facebook, etc.)	26%	27%
Providing more self-serve services on the website	41%	47%
Educating customers about energy conservation	73%	72%
Reducing response times to outages	79%	87%
Investing more in tree trimming to help reduce the number of outages	67%	77%
Educating the public as it relates to electricity safety	67%	71%
Investing in projects to reduce the environmental impact of the utility's operations	76%	80%

Base: total respondents from the 2019 UtilityPULSE Database

Is paying for electricity a worry or a major problem?				
	Not a worry	Sometimes	Often	Depends
Residential	72%	19%	7%	1%
Commercial	77%	15%	6%	1%

Base: total respondents from the 2019 UtilityPULSE Database

Satisfaction with information provided		
Top 2 Boxes: 'very + fairly satisfied'	Residential	Commercial
The quality of information available when outages occur	73%	77%
The electricity safety education provided to the public	71%	75%
The timeliness and relevance of the information for things such as planned outages, construction activity, tree trimming.	76%	82%

Base: total respondents from the 2019 UtilityPULSE Database

Access to services		
Top 2 Boxes: 'very + somewhat satisfied'	Residential	Commercial
The availability of call-centre staff Monday to Friday	73%	82%
The 24/7 availability of system operators to respond to outages	74%	78%
The online self-serve options for managing your account	60%	65%
The online self-serve options for requesting services	53%	56%

Base: total respondents from the 2019 UtilityPULSE Database



## Method

The findings in this report are based on telephone interviews conducted for Simul Corp. / UtilityPULSE by Logit Group between September 3 - September 19, 2019, with 604 respondents who pay or look after the electricity bills from a list of residential and small and medium-sized business customers supplied by Hydro Ottawa.

The sample of phone numbers chosen was drawn randomly to ensure each business or residential phone number on the list had an equal chance of being included in the poll.

The sample was stratified so that 85% of the interviews were conducted with residential customers and 15% with commercial customers.

In sampling theory, in 19 cases out of 20 (95% of polls in other words), the results based on a random sample of 604 residential and commercial customers will differ by no more than  $\pm 3.99$  percentage points where opinion is evenly split.

This means you can be 95% certain that the survey results do not vary by more than 3.99 percentage points in either direction from results that would have been obtained by interviewing all Hydro Ottawa residential and small and

medium-sized commercial customers if the ratio of residential to commercial customers is 85%:15%.

The margin of error for the sub-samples is larger. To see the error margin for subgroups, use the calculator at <http://www.surveysystem.com/sscalc.htm>.

Interviewers reached 5,394 households and businesses from the customer list supplied by Hydro Ottawa. The 604 who completed the interview represent a 11% response rate.

The findings for the Simul/UtilityPULSE National Benchmark of Electric Utility Customers are based on telephone interviews conducted with adults throughout the country who are responsible for paying electric utility bills. The ratio of 85% residential customers and 15% small and medium-sized business customers in the National study reflects the ratios used in the local community surveys. The margin of error in the National poll is  $\pm 2.95$  percentage points at the 95% confidence level.

For the National study, the sample of phone numbers chosen was drawn by recognized probability sampling methods to ensure each region of the country was represented in proportion to its population and by a method

that gave all residential telephone numbers, both listed and unlisted, an equal chance of being included in the poll.

The data were weighted in each region of the country to match the regional shares of the population.

The margin of error refers only to sampling error; other non-random forms of error may be present. Even in true random samples, precision can be compromised by other factors, such as the wording of questions or the order in which questions were asked.

Random samples of any size have some degree of precision. A larger sample is not always better than a smaller sample. The important rule in sampling is not how many respondents are selected but how they are selected. A reliable sample selects poll respondents randomly or in a manner which ensures that everyone in the population being surveyed has an equal chance of being selected.

How can a sample of only several hundred truly reflect the opinions of thousands or millions of electricity customers within a few percentage points?

Measures of sample reliability are derived from the science of statistics. At the root of statistical reliability is probability, the odds of obtaining a particular outcome by chance alone. For example, the chances of having a coin come up heads

in a single toss are 50%. A head is one of only two possible outcomes.

The chance of getting two heads in two coin tosses is less because two heads are only one of four possible outcomes: a head/head, head/tail, tail/head, and tail/tail.

But as the number of coin tosses increases, it becomes increasingly more likely to get outcomes that are either close to or exactly half heads and half tails because there are more ways to get such outcomes. Sample survey reliability works the same way but on a much larger scale.

As in coin tosses, the most likely sample outcome is the true percentage of whatever we are measuring across the total customer base or population surveyed. Next, most likely are outcomes very close to this true percentage. A statement of the potential margin of error or sample precision reflects this.

Some pages in the computer tables also show the standard deviation (S.D.) and the standard error of the estimate (S.E.) for the findings. The standard deviation embraces the range where 68% (or approximately two-thirds) of the respondents would fall if the distribution of answers were a normal bell-shaped curve. The spread of responses is a way of showing how much the result deviates from the "standard mean" or average. In the Hydro Ottawa data on corporate image,

Simul converted the answers to a point scale with 4 meaning agree strongly, 3 meaning agree somewhat, and so on (see in the computer tables).

For example, the mean score is 3.69 for providing consistent, reliable electricity. The average is 3.38 for providing information to help customers reduce their energy costs.

For reliable electricity, the standard deviation is 0.59. For providing information to help customers reduce their energy costs, the Standard Deviation (S.D.) is 0.78. These findings mean there is a wider range of opinion – meaning less consensus – about whether help to reduce energy costs than about whether Hydro Ottawa energy supplies are reliable.

Beneath the S.D.. in the tables is the standard error of the estimate. The S.E. is a measure of confidence or reliability, roughly equivalent to the error margin cited for sample sizes. The S.E. measures how far off the sample's results are from the standard deviation. The smaller the S.E., the greater the reliability of the data.

In other words, a low S.E. indicates the answers given by respondents in a certain group (such as residential bill payers or women) do not differ much from the probable

spread of the answers "predicted" in sampling and probability theory.

In certain instances, all of the sub-datasets from the entire UtilityPULSE database for 2019 were concatenated in order to use the average of all the control samples for comparison. The cumulated population base for these questions was over 7,000.

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**Your personal contact is:**

**Sid Ridgley, CSP**

**Phone: (905) 895-7900 x 29 E-mail: [sridgley@simulcorp.com](mailto:sridgley@simulcorp.com)**

# Hydro Ottawa

## 2019 Electric Utility Large Customer Satisfaction Survey





**The purpose of this report is to profile the connection between Hydro Ottawa and its customers.**

The primary objective of the Large Customer Electric Utility Customer Satisfaction Survey is to provide information that will support discussions about improving customer care at every level in your utility.

The UtilityPULSE Report Card® and survey analysis contained in this report are intended to provide data and information that will help guide your decisions for making improvements to your operations.

This survey report is privileged and confidential material, and no part may be used outside of Hydro Ottawa without written permission from UtilityPULSE, the electric utility survey division of Simul Corporation.

All comments and questions should be addressed to:

Sid Ridgley, UtilityPULSE division, Simul Corporation

Tel: 905-895-7900 x 29

Email: [sidridgley@utilitypulse.com](mailto:sidridgley@utilitypulse.com) or [sridgley@simulcorp.com](mailto:sridgley@simulcorp.com)



## Connections...Large Customer Survey

[General Service (50-4999 kW)]

The private industry sector, for the most part over the past two to three years, has had slow but steady growth. As every experienced business person knows, a lot of 'problems & issues' can be hidden or ignored when revenues are expanding. However businesses don't seem to be enthusiastic about the prospects of future growth. According to the Conference Board of Canada, the outlook for business investment is weak. Businesses are expressing a great deal of pessimism about their future spending. (Canadian Outlook Economic Forecast, published July 24, 2019.)

What might that mean for large commercial customers? Historically, when a business has difficulty growing the top line i.e., revenues of the business, they look more deeply at each cost line of the operations side of the business. While commercial businesses are (almost) always mindful of costs, we believe reviewing costs will take a priority in 2020.

Research undertaken by UtilityPULSE with large commercial (LC) customers indicates:

- 1- Familiarity with energy storage remains high, for Hydro Ottawa it is 45%
- 2- Of respondents who are familiar with energy storage, 64% are very + somewhat interested in implementing energy storage
- 3- Reducing current costs are important, but so is reducing future costs
- 4- Large commercial customers are not very familiar with the term "demand response program"

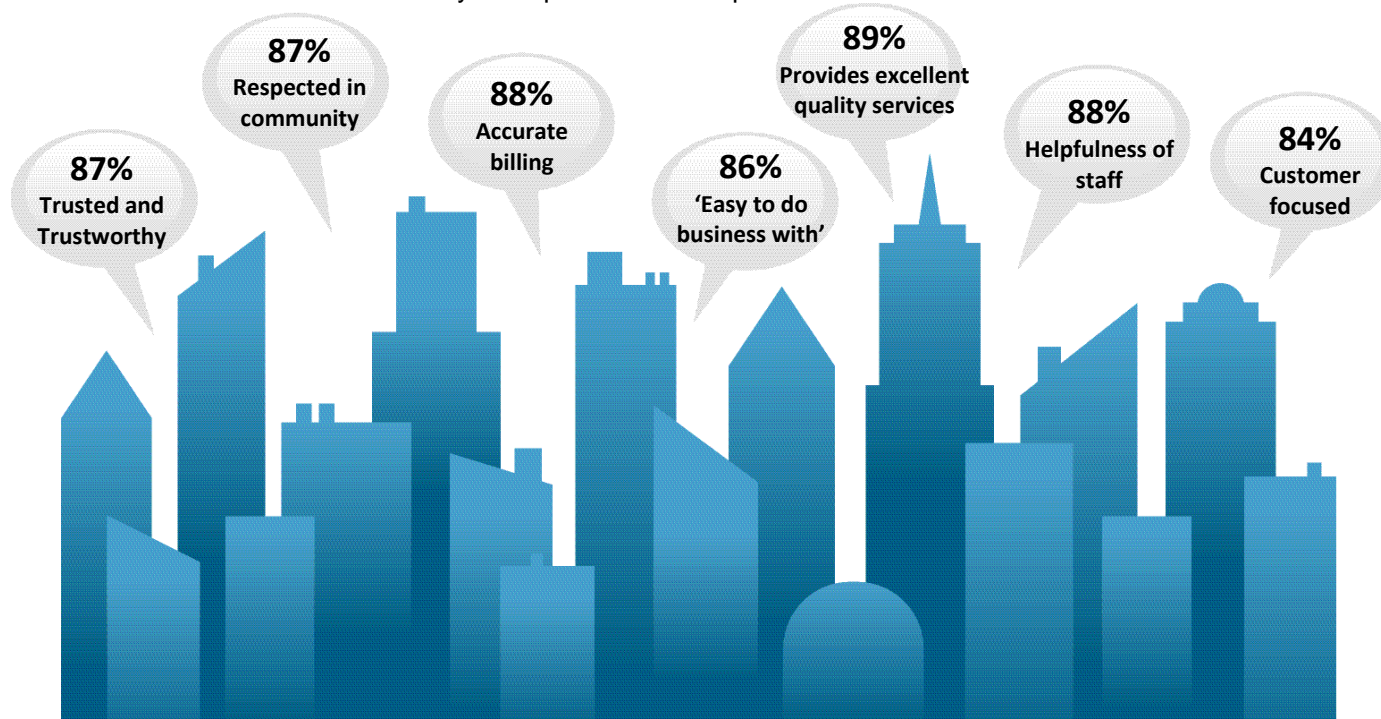


- 5- A high percentage of those very few who are familiar with “demand response” are very + somewhat interested in implementing a demand response program to reduce costs
- 6- Interest in data analytics i.e., consumption data beyond the monthly bill, will increase. Depending on what ROI the LDC can demonstrate with a data analytics service (if any), large commercial customers may be willing to pay a reasonable amount for advanced analytics, especially if they include recommendations
- 7- Conservation will continue as an area of focus. Since much of the easy stuff has been done, i.e., lighting there is a need (and desire) to do more – hence we believe, is driving an interest in data analytics
- 8- Higher expectations as they relate to pro-active communications on changes and issues which may affect customers
- 9- Professionalism, knowledge and experience of those from Hydro Ottawa who interact with large commercial customers will be compared to the service large commercial customers receive from other suppliers
- 10- Large commercial customers will, in increasing numbers, be contacting the professionals at Hydro Ottawa, for information and advice about a wide range of energy management issues & opportunities.

Your survey conducted from August 19 - October 4, 2019 contains feedback from 240 one-on-one telephone interviews with individuals who have the responsibility to interact with the utility in the event



of a power outage. To enrich your survey results we have included data from our UtilityPULSE LC Ontario database of customer surveys completed over the past 12 months.



At the end of the survey, respondents were asked if they would like someone from Hydro Ottawa to contact them. A popular reason for having someone contact them was “ways to reduce costs”, “the costs of power” and “learn more about energy storage”. As one of our analysts noted, “there seems to



be a broader range of reasons [ in 2019 ] requesting that someone from the utility contact them, compared to the past couple of years.”

We believe the complexities in the electricity industry coupled with massive technological changes going on in the industry, large commercial customers will increasingly look to Hydro Ottawa for advice. We continue to recommend LDCs to adopt a robust “major account management” methodology for supporting large commercial customers. After-all when the market offers multiple competing “opportunities” to reduce consumption or reduce costs, confusion can result. Commercial clients will often look for expertise before making an investment – many believe that expertise is with their LDC.

The core of the job at Hydro Ottawa is to operate efficiently by safely and reliably delivering high-quality electricity to its customers.

Operational Attributes		
	Hydro Ottawa	UP Database
<b>Provides consistent, reliable energy</b>	92%	92%
<b>Quickly handles outages and restores power</b>	91%	89%
<b>Delivers on its service commitments to customers</b>	90%	89%
<b>Makes electricity safety a top priority</b>	94%	92%
<b>Accurate billing</b>	88%	88%

Base: total Large Customer respondents with an opinion

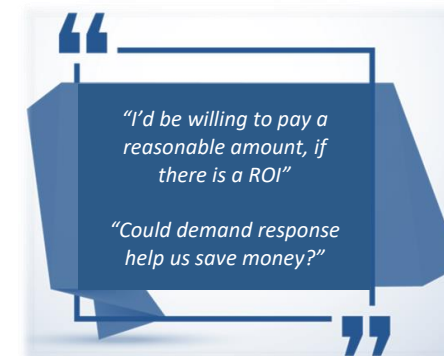


Mistakes can be costly to people's careers. As such, with potentially more scrutiny on the "energy" file in 2020, decision-makers in large commercial companies will want to rely on the experience of others. Hydro Ottawa is well poised with expertise.

Representative Attributes		
	Hydro Ottawa	UP Database
Representatives are knowledgeable, professional and courteous	92%	90%
Representatives provide a high level of consistency when interpreting policies and regulations	87%	84%
Is 'easy to do business with'	86%	86%
Customer-focused and treats customers as if they're valued	84%	84%

Base: total Large Customer respondents with an opinion

Hydro Ottawa's Large business customers can be both impatient and demanding when there are issues with the safe, reliable delivery of electricity. Survey respondents gave a score of (87%) for being a 'trusted and trustworthy company' and a score of (80%) on the attribute of 'adapting well to changes in customer expectations'.





## Numbers at a Glance

	Hydro Ottawa	UtilityPULSE Database
<b>Customer Satisfaction: Initial</b>	96%	93%
<b>Customer Satisfaction: Post</b>	97%	96%
<b>Overall Satisfaction with the most recent experience</b>	88%	86%
<b>Customer Experience Performance Rating (CEPr)</b>	89%	88%
<b>Customer Centric Engagement Index (CCEI)</b>	87%	87%
<b>Credibility &amp; Trust Index</b>	88%	87%

Base: total Large Customer respondents

Respondents were asked to comment on the priority level of the implementation or execution of 17 different initiatives/projects which encompass operational aspects and/or financial commitment.

A focus on priorities can lower risk, increase efficiency and optimize resource utilization - resulting in faster deliveries of key requirements. Where things can go downhill is when the LDC either misunderstands a customer's priorities or fails to manage what they know are priority issues. A better understanding of priorities gives the LDC the opportunity to focus its limited resources better and to prepare knowledgeable answers to questions about LC priorities.





We've included findings from our UtilityPULSE database Fall 2019, about the “priorities” large commercial customers would want their LDC to be working on. Based\* on the responses rendered by Ontario Large customer respondents, the following 5 initiatives which were given **high priority** ('very high + high') to be pursued by Ontario LDCs within the next 5 years:

1. **89% - Maintaining and upgrading equipment**
2. **87% - Reducing response times to outages**
3. **83% - Investing more in the electricity grid to reduce outages**
4. **79% - Investing in projects to reduce the environmental impact of the utility's operations**
5. **76% - Educating customers about energy conservation**



\*Base: total Large Customer respondents from UP Database



While LCs may only represent a tiny fraction of the customer base, the amount of the total kWh used by LCs in the LDCs geographic territory is huge. LC customers were asked to look ahead down the road 1-2 years and whether they anticipated any changes to their business which would affect electricity consumption by more than 5% in either direction. 24% believed their business would undergo some changes while 70% did not foresee any changes affecting electricity consumption.



For the Fall 2019, Hydro Ottawa augmented the Large commercial survey with questions probing subject such as: Demand Response, Electricity Consumption Data, Electric Vehicle charging stations and Energy Storage. We encourage you to review those sections in this report.

Large commercial companies, just like their small commercial counterparts do have an affinity level for the LDC. Higher affinity levels means stronger support for Hydro Ottawa when you want to make changes or involve the company in various energy saving or cost saving ideas. It is important to have a strong marketing communications plan.

As a reminder, it is important to have a meaningful two-way dialogue with employees and others in your LDC to leverage results from this survey. Understanding wants, needs, and priorities is an excellent step towards ensuring that satisfaction and affinity levels remain high.

Sid Ridgley  
Simul/UtilityPULSE  
Email: [sidridgley@utilitypulse.com](mailto:sidridgley@utilitypulse.com) or [sridgley@simulcorp.com](mailto:sridgley@simulcorp.com)  
November 2019



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## Satisfaction (pre & post)

Customer satisfaction is one dimension for measuring the effectiveness of an enterprise. But focusing on customer satisfaction as a sole measure is not enough to gain a picture of how well an operating unit/enterprise might be doing. Customer satisfaction as a measure is an effectiveness measure (not an efficiency measure) on the historical relationship or delivery of services to clients.

*“Satisfaction happens when an enterprise’s core services meet or exceed customer’s needs, wants, or expectations.”*

Customer Satisfaction		
	Hydro Ottawa	UP Database
Very satisfied	40%	42%
Fairly satisfied	56%	52%
Neither satisfied nor dissatisfied	0%	1%
Fairly dissatisfied	2%	3%
Very dissatisfied	1%	1%

Base: total Large Customer respondents, may not add to 100% due to rounding

**96%** of customers said they were **satisfied** with **Hydro Ottawa**. 93% were satisfied in the UP database.

Base: total respondents:  
 Top 2 Boxes: 'very + fairly satisfied'

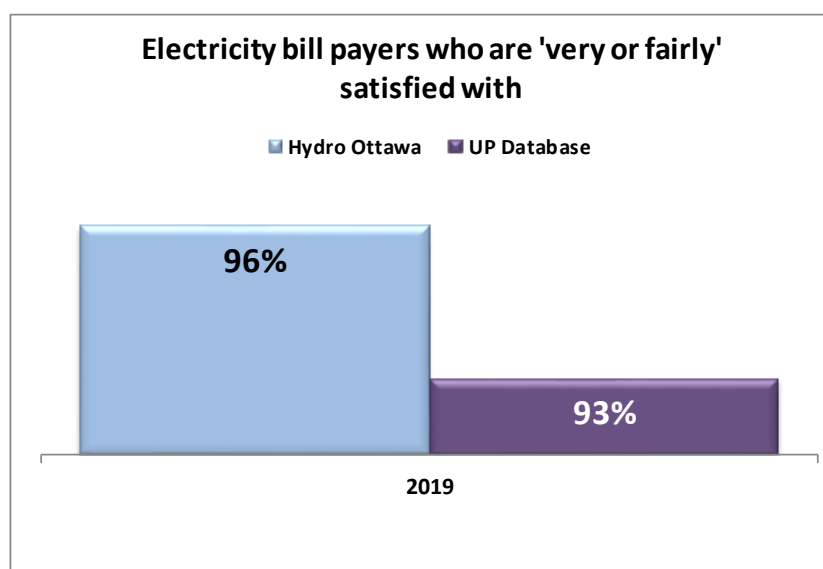
A focus on satisfaction prompts an organization to continue to evolve in ways which make sense to those that pay the bills. A focus on satisfaction is a focus on effectiveness in the delivery of service to the customer. Satisfied customers who trust their LDC may be more likely to seek advice, i.e. energy efficiency methods

and may be more receptive to important messages, i.e. safety, new capital projects, data analytics, energy storage, etc. Another reason to focus and measure satisfaction is to reduce negative word of mouth.

If customers cannot leave what are the reasons why every LDC should place a premium on satisfying customers? Here are some of the important ones:

- 1- Every enterprise has an obligation to satisfy its customers
- 2- Feedback, when acted upon, is beneficial to all parties
- 3- Different LCs have different needs, one-size certainly doesn't fit all
- 4- Stronger relationships with customers generate higher levels of involvement and participation
- 5- Without satisfaction, it is difficult to inspire LCs to pursue new ideas and possibilities
- 6- Economically, high levels of satisfaction lead to fewer customer complaints and less scrutiny (hence less cost)
- 7- As an effectiveness measure, it prompts discussion about policies, procedures, planning, use of technology, and more
- 8- When things go wrong (and they do), customers with high levels of satisfaction handle the problem far better than customers with very low levels of satisfaction
- 9- For employees, there is a morale boost when working in an organization with a high level of customer satisfaction
- 10- Customers (as well as others) have growing levels of expectations which means the things that satisfy customers today may not tomorrow.

Satisfaction levels with their LDC greatly influence the future behaviour of LCs. In an energy world rife with current and future disruptions, LCs will increasingly be turning to their LDC for advice and counsel.



Base: total Large Customer respondents

In the private sector, customer satisfaction and loyalty are often seen as essential for survival and success.

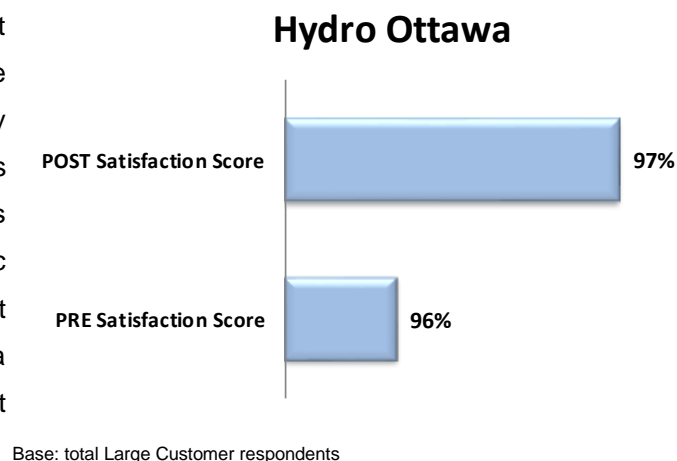
Public sector organizations, especially MUSH sector organizations (municipalities, universities, schools, hospitals), have come to realize that looking after their customers and taking the opportunity to learn from them is key to delivering services which are both effective and efficient.

Large commercial customers are not the same as a residential or small commercial customer. After 20 years of continuous research with electric utility customers, expectations of their electric utility go far beyond “keeping the lights on,” “billing me properly,” and “restoring power quickly.” For LC’s electricity is an input cost for delivering their products or services. The cost of electricity can affect the pricing and profitability of the LC.

**Satisfaction** happens when utility core services meet or exceed customer's needs, wants, or expectations.

- **Loyalty** occurs when a customer makes an emotional connection with their electric utility on a diverse range of expectations beyond core services. In the monopoly world of the LDC, loyalty is an attitudinal metric.

In the Simul/UtilityPULSE Customer Satisfaction survey, the overall satisfaction question is asked both at the beginning (PRE) and the end (POST). Asking the general satisfaction question at the start of the survey avoids bias, and we obtain a spontaneous rating. This allows measurement of customers' overall impressions of the utility before prompting them to think of specific aspects of the relationship. After we have asked about specific aspects of the customer experience, we gain a more *considered* (or conditioned) response. LCs expect certain things from their electric utility such as being able to get speedy service, professionalism, problem resolution, understanding, and responsiveness.



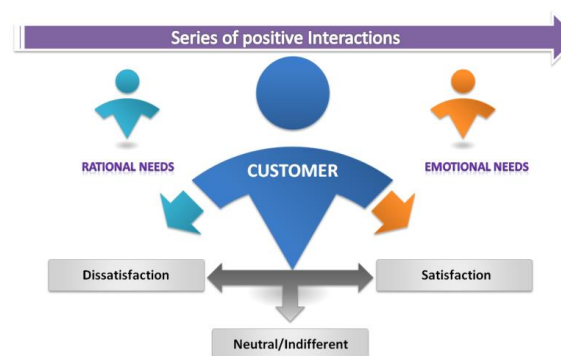
Satisfaction alone does not make a customer loyal; a willingness to commit and advocate for a company along with satisfaction identifies the three basic customer attitudes which underpin loyalty profiles. While

satisfaction is an important component of loyalty, the UtilityPULSE loyalty definition includes attitudinal and emotive components. However, Customer satisfaction is a gateway to earning loyalty.

Customer Satisfaction		
Top 2 Boxes: 'very + fairly satisfied'	Hydro Ottawa	UP Database
Initially	96%	93%
End of interview	97%	96%

Base: total Large Customer respondents

Customers, as human beings, are both rational and emotional. The rational side of the customer holds the LDC accountable for doing its job (as contracted), thereby fulfilling the customer's basic needs. The emotional side of the customer is about fulfilling expectations. Meeting rational needs – at best – gets the customer to a neutral state and at worst creates dissatisfaction. Emotional needs, when met, assuming base level rational needs are met, can move a customer from neutral to higher levels of satisfaction.



Every LDC executive we know, would (probably) raise their hand and say that they believe customer satisfaction is important for business success – even in a virtual monopoly business. Based on our experience most LDCs have been honing their skills at being professional, knowledgeable and efficient

when handling customer problems. While being good at these things continues to be important, it, however, promotes a transaction by transaction orientation. There is growing evidence that LCs appreciate it when LDCs have more than a “buyer-supplier” relationship.

Fostering true loyalty and engagement with customers begins at a basic level. Also, satisfied and engaged employees who work in an organizational culture that promotes service excellence is key for completing the job both efficiently and effectively. After all, employees do more than deliver customer service – they personalize the relationship between the customer and the utility.

One of the most illuminating results of your survey was the relationship between satisfaction and the attribute of Trust and Trustworthiness. When trust is high so is satisfaction, when trust is low so is satisfaction.

Relationship between Satisfaction and the attribute of Trust & Trustworthiness		
	Very + Fairly Satisfied	Fairly + Very Dissatisfied
Hydro Ottawa is a trusted and trustworthy company	99%	68%

Base: total Large Customer respondents

Being dependable, providing consistent and reliable service are crucial components in building trust, throughout every aspect of the service relationship. Actively engaging with customers helps build a stronger and committed alliance.

Trust is a complex judgment a person makes about someone or something. It can be interpersonal – as in the relationship of LDC professionals with their LC customers, and it can be impersonal – such as when there is an outage the LDC will fix it.

Based on our social research the formula for building trust could be expressed as:

Trust = (Credibility + Consistency + Mutual Respect + Candor + Shared Commitments) minus Self-focus



# Customer Service

There is no way the quality of customer service can exceed the quality of the people delivering it. LDCs can have all the elements of customer service in place. However LCs will not be satisfied if they are disappointed with the way their transaction is handled or its results. There are lots of things the LDC and its people cannot control, but employees can control the quality of the experience.



It is important to ensure LDC customer service agents have what they need to serve your customers anytime, on any channel. In a multi-platform world for delivering customer service, it is important to note that LDCs expect consistency and professionalism regardless of the means of contact.

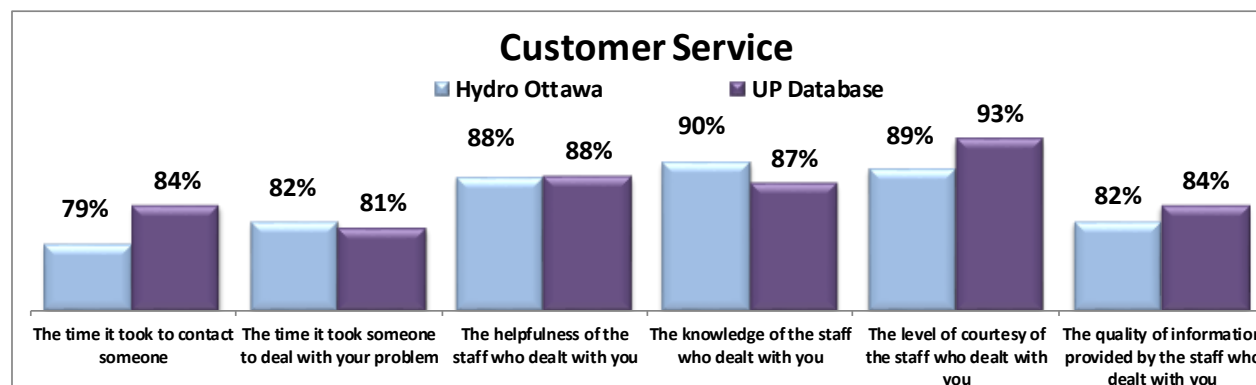
Respondents, who contacted their utility about a problem, were asked about six aspects of their most recent experience with a representative from Hydro Ottawa:

- Information – the quality of information provided
- Staff attitude – the level of courtesy
- Professionalism – the knowledge of staff
- Delivery – the helpfulness of staff
- Timeliness – the length of time it took to get what they needed
- Accessibility – how easy it was to contact someone

Attempts to contact the LDC		
	YES	NO
Did you contact the LDC regarding your problem?	40%	58%

Base: total Large Customer respondents with a problem

Customers value speed and responsiveness especially as it relates to solving problems. The more flexibility you're able to offer and the more empowerment given to employees, the better able employees will be to meet those "speed" and "responsiveness" requirements. Customers benefit, too, when employees can resolve problem issues "on the spot" instead of having to "talk to my manager." A recommendation that we consistently make to all LDC executives is to ensure your company professionals have the empowerment and decision-making authority necessary to make things happen quickly.



Base: total Large Customer respondents with a problem

The survey data shows that 40% of your Large customers contacted the utility about a problem, with 84% of them believing the problem was resolved. When asked about their most recent experience with the utility, 88% of those customers say they are "very and somewhat satisfied" with the way the utility handled their problem.

Overall satisfaction with the most recent experience		
	Hydro Ottawa	UP Database
<b>Top 2 Boxes: 'very + fairly satisfied'</b>	88%	86%

Base: total Large Customer respondents who contacted the utility

There is a difference between fixing a problem and engaging a customer. The key to resolving issues and improving customer engagement is to think beyond problem resolution. Though all customers want a satisfactory resolution to their problem, they are also concerned with how the utility handles that problem. Companies do not absolve themselves by fixing the issue; they do so by taking care of their customers' emotional needs as well.

Do you consider the problem solved?		
	Hydro Ottawa	UP Database
<b>Solved = Yes</b>	84%	79%

Base: total Large Customer respondents who contacted the utility

Top reasons why Large Customers contact their LDC		
	Hydro Ottawa	UP Database
Billing issue	45%	38%
Power quality issue	33%	25%
Maintenance/repair request	9%	8%
Ways to save energy	4%	3%
Account updates	4%	3%
Connect or Disconnect	12%	10%
Get a meter reading	0%	3%
Rebates/incentives for conserving energy	3%	4%
Conditions of service inquiry	5%	2%
Reaching out for advice	5%	2%
Upgrading service	2%	3%
Other	3%	4%

Base: total Large Customer respondents who contacted the utility

The key to effective handling of customer issues is empathy, patience, and consistency. Customer issues may not be easy to handle – ever – but we can say “when customers feel ‘*no one cares*’ that is where rage and outrage exist.”

Your LC survey respondents said they “strongly agree + agree” with the following:

<b>Customer Service attributes:</b>	<b>Hydro Ottawa</b>	<b>UP Database</b>
<b>Customer focused and treats customers as if they're valued</b>	84%	84%
<b>Is pro-active in communicating changes and issues which may affect customers</b>	83%	83%
<b>Is 'easy to do business with'</b>	86%	88%
<b>Representatives provide a high level of consistency when interpreting regulations and policies</b>	87%	84%
<b>Representatives are knowledgeable, professional &amp; courteous</b>	92%	90%

Base: total Large Customer respondents with an opinion

Customers rely on their LDC contact for their knowledge on how best to solve a problem and, they appreciate a representative who will see the problem through to its resolution. When your Large customers are satisfied with the contact they had with a representative, contact satisfaction levels can be equal or higher (99%) than overall customer satisfaction scores; likewise, when customers are less satisfied or dissatisfied with contact satisfaction levels will be lower (55%) than overall scores.

<b>Overall Customer Satisfaction in relation to Satisfaction with contact</b>			
	<b>Overall Customer Satisfaction</b>	<b>Satisfied with contact</b>	<b>Not Satisfied with contact</b>
<b>Top 2 Boxes: 'very + fairly satisfied'</b>	96%	99%	55%

Base: total Large Customer respondents who contacted the utility

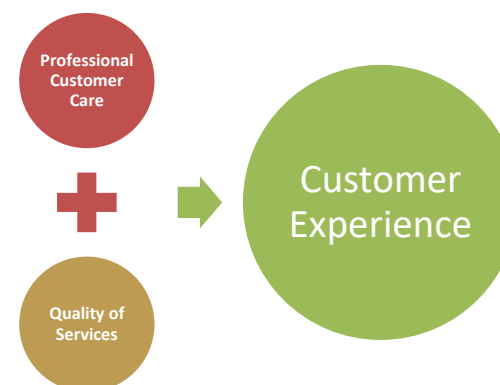
# Customer Experience Performance rating (CEPr)

The CEPr score is an effectiveness rating and is affected by many dimensions of service. Every touch point with customers on the phone, website or in-person influences what customers think and feel about the organization.

When the customer experience is strong, the opportunity to build loyalty is great. When the experience is a negative one, customers often conclude the organization doesn't care. When a customer believes the organization doesn't care, outrage and anger are a very real possibility

At the heart of the CEPr are 4 central questions:

- Are interactions with the organization professional and productive?
- Is the organization 'easy to deal with'?
- Does the organization effectively meet your needs?
- Does the organization provide high quality services?



Some of the factors which contribute to the overall Customer experience:

- Delivering accessible and consistent customer service
- Understanding customer expectations
- Maintaining timely resolution timelines
- Providing effective communication(s) according to customer needs
- Demonstrating responsiveness
- Speeding up problem resolution
- Conducting problem analysis to prevent recurring issues
- Easy to do business with
- Seeking customer feedback and following through on recommendations



Customer Experience Performance rating (CEPr)		
	Hydro Ottawa	UP Database
CEPr: Professional Customer Care	88%	87%
CEPr: Quality Services	90%	89%
CEPr: Overall	89%	88%

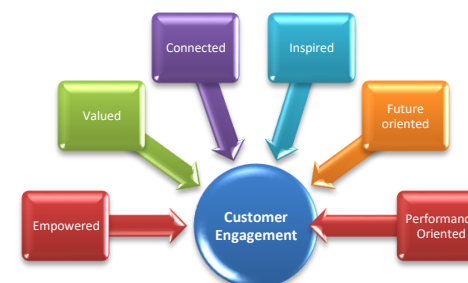
Base: total Large Customer respondents

**89% of Large customers have a belief that they will have a good to excellent experience dealing with your professionals.**

# Customer Centric Engagement Index (CCEI)

Customer-centric engagement is a measure of “goodwill” towards the utility. Customers who are less engaged, as measured by the CCEI are more likely to let costs and price impact their perceptions of their LDC. Customers who are highly engaged are more inclined to look past costs and money issues and use a rational approach to make values-based decisions. Highly engaged customers have a stronger emotional connection to your utility. It’s this emotional connection that will drive commitment, collaboration and involvement.

UtilityPULSE has identified the six key dimensions of what defines customer engagement. They are: empowered, valued, connected, inspired, future-oriented and performance oriented. Engagement is more than asking for an opinion or soliciting feedback. Engagement is also: how **customers think, feel and act towards the organization.**



Utility Customer Centric Engagement Index (CCEI)		
	Hydro Ottawa	UP Database
CCEI	87%	87%

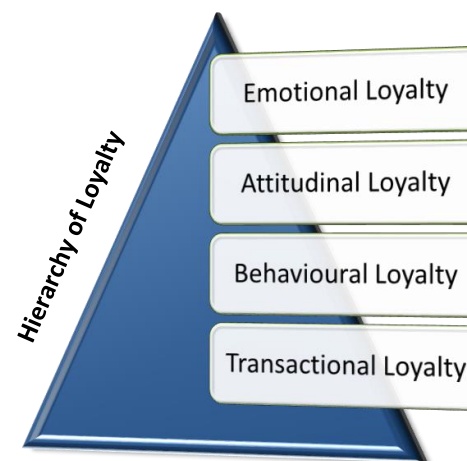
Base: total Large Customer respondents

# The Loyalty Factor

Private industry often equates customer loyalty with basic customer retention. If a customer continues to do business with a company, that customer is, by definition, considered to be loyal. Applying this definition to an LDC in the utility industry, means, all customers would automatically be considered loyal. As such, measuring customer loyalty would appear to be unnecessary.

Natural monopolies (like LDCs) are not really different in what they should measure except that trying to determine which customers are “loyal” or “at risk” is not about their future behaviour but more about their “attitudinal” loyalty (are they advocates?).

Perhaps a better or more relevant way for utilities to approach the definition of customer loyalty is to expand further how they think about loyalty. Consider the following definition: Customer loyalty is an emotional disposition on the part of the customer that affects the way(s) in which the customer (consistently) interacts, responds or reacts towards the company – its products & services and its brand.



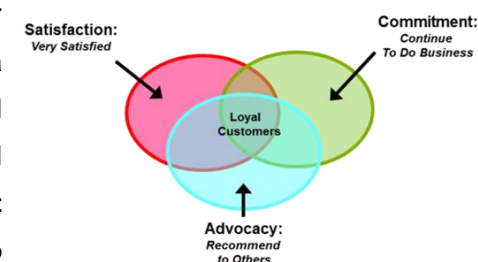
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Customer **commitment** to the local electricity supplier is a very important driver of customer loyalty in the electricity service industry. In a similar way to trust, commitment is considered an important ingredient in successful relationships. In simpler terms, **commitment refers to the motivation to continue to do**

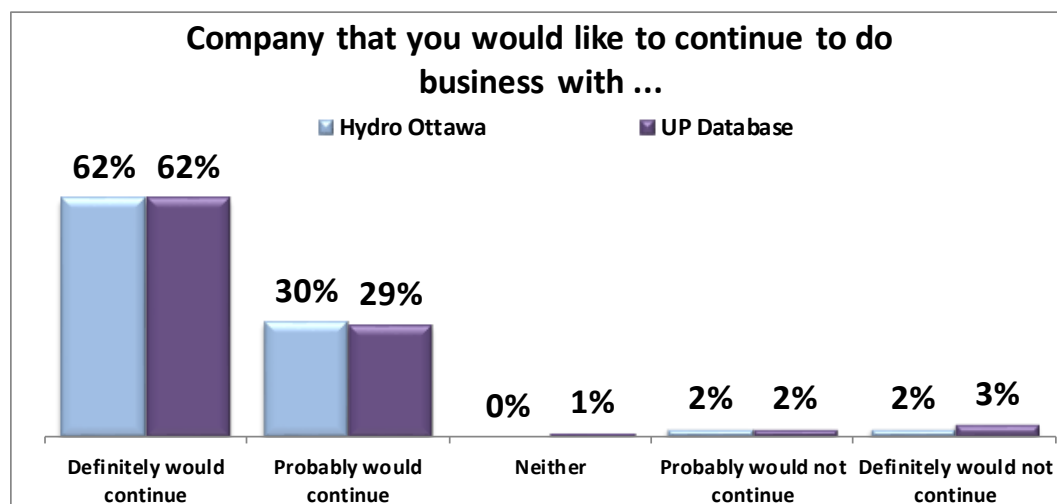
**business with and maintain a relationship with a business partner**, i.e. the local utility. For electric utilities, this measurement is about identifying the number of customers who feel that they “want to” vs. “have to” do business with you.

### Customer Loyalty Model



Electricity customers' loyalty – ... Is a company that you would like to continue to do business with		
	Hydro Ottawa	UP Database
<b>Top 2 Boxes:</b>	<b>91%</b>	<b>90%</b>
<b>'Agree strongly + agree somewhat'</b>		
<b>Agree strongly</b>	62%	62%
<b>Agree somewhat</b>	30%	29%
<b>Neither agree or disagree</b>	0%	1%
<b>Disagree somewhat</b>	2%	2%
<b>Disagree strongly</b>	2%	3%

Base: total Large Customer respondents



Base: total Large Customer respondents

What does it mean to respond favourably to a company? At a basic level, this can mean choosing to remain a customer. As previously mentioned, however, this is essentially a non-issue for many utility companies. It then becomes necessary to think beyond just customer retention. One needs to consider other ways in which customers can respond favourably toward a company.

Other favourable responses or behaviours are classified into one of three categories that reflect the concept of customer loyalty:

- Participation

- Compliance or Influence
- Advocacy

Specific examples of potential participatory behaviour in the electric utility industry include:

- Signing up for programs that help the customer reduce or manage their energy consumption
- Using the utility as a consultant when selecting energy products and services from a third party
- Participating in pilot programs or research studies.

Specific examples of potential compliance or influence behaviours that utility customers might exhibit include:

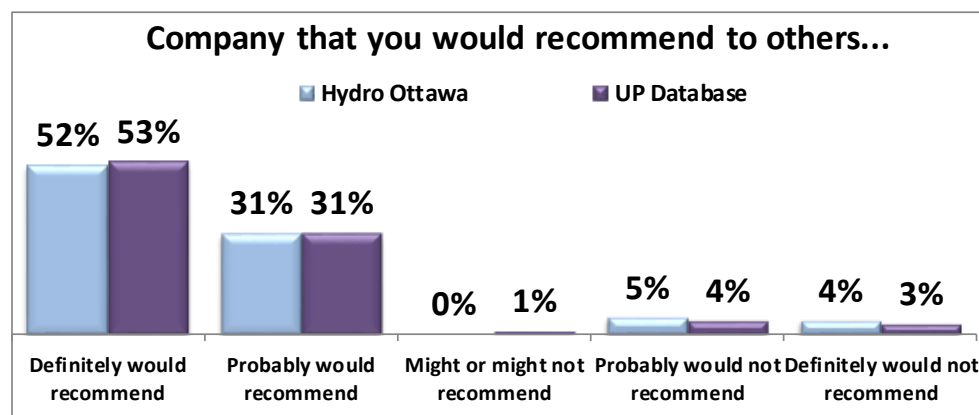
- Seeking the utility's advice or expertise on an energy-related issue
- Voluntarily cutting back on electricity usage if the utility advised the customer to do so
- Accepting the utility's energy advice or referrals to energy contractors or equipment
- Being influenced by the utility's opinion regarding energy- management advice, equipment, or technologies
- Providing personal information
- Paying bills online.

Creating **customer advocates** can be especially important for a company in a regulated industry. In the absence of customer advocates, or worse, in a situation where customers speak unfavourably about a company or actively work to support issues that are counter to those the company supports, companies can suffer a variety of negative consequences like increased business costs, lawsuits, fines, and construction delays. Specific examples of potential advocacy behaviour include:

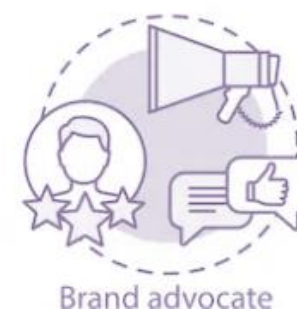
- Supporting the utility's positions or actions on energy-related public issues, including the environment
- Supporting the utility's position on the location and construction of facilities
- Providing testimonials about positive experiences with the utility.

Electricity customers' loyalty – ... is a company that you would recommend to others		
	Hydro Ottawa	UP Database
<b>Top 2 boxes:</b> <b>'Agree strongly + agree somewhat'</b>	<b>83%</b>	<b>85%</b>
Agree strongly	52%	53%
Agree somewhat	31%	31%
Neither agree or disagree	0%	1%
Disagree somewhat	5%	4%
Disagree strongly	4%	3%

Base: total Large Customer respondents

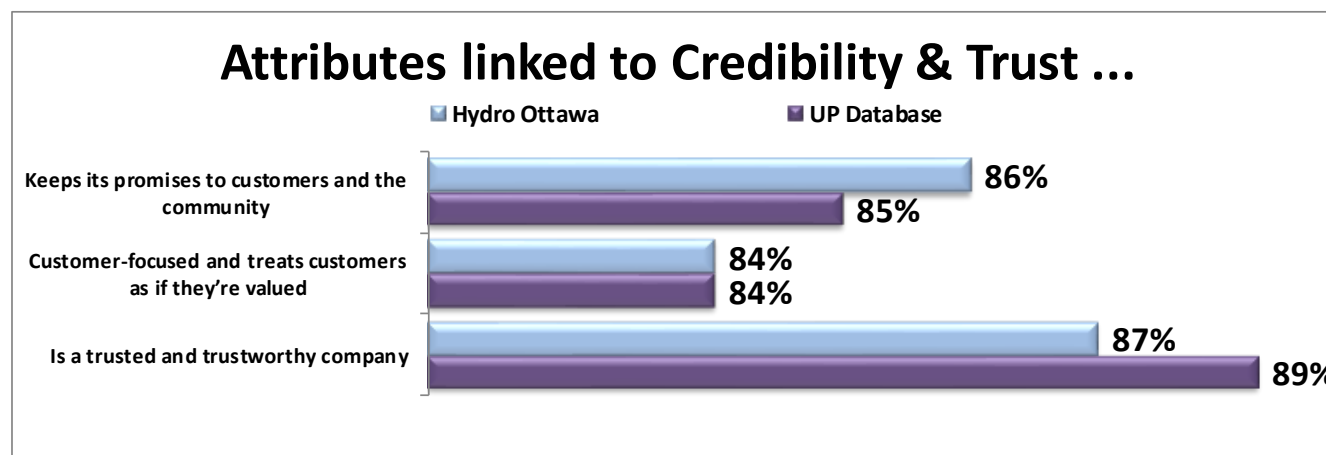


Base: total Large Customer respondents



## Corporate image, credibility & trust

What Hydro Ottawa stands for, the way it works with customers, its profile in the industry are all parts of its brand. Throughout our years of research, our data show a direct relationship between a positive brand image and the credibility of the LDC.



Base: total Large Customer respondents with an opinion

Attributes strongly linked to Credibility & Trust		
	Hydro Ottawa	UP Database
<b>Keeps its promises to customers and the community</b>	86%	85%
<b>Customer-focused and treats customers as if they're valued</b>	84%	84%
<b>Is a trusted and trustworthy company</b>	87%	89%

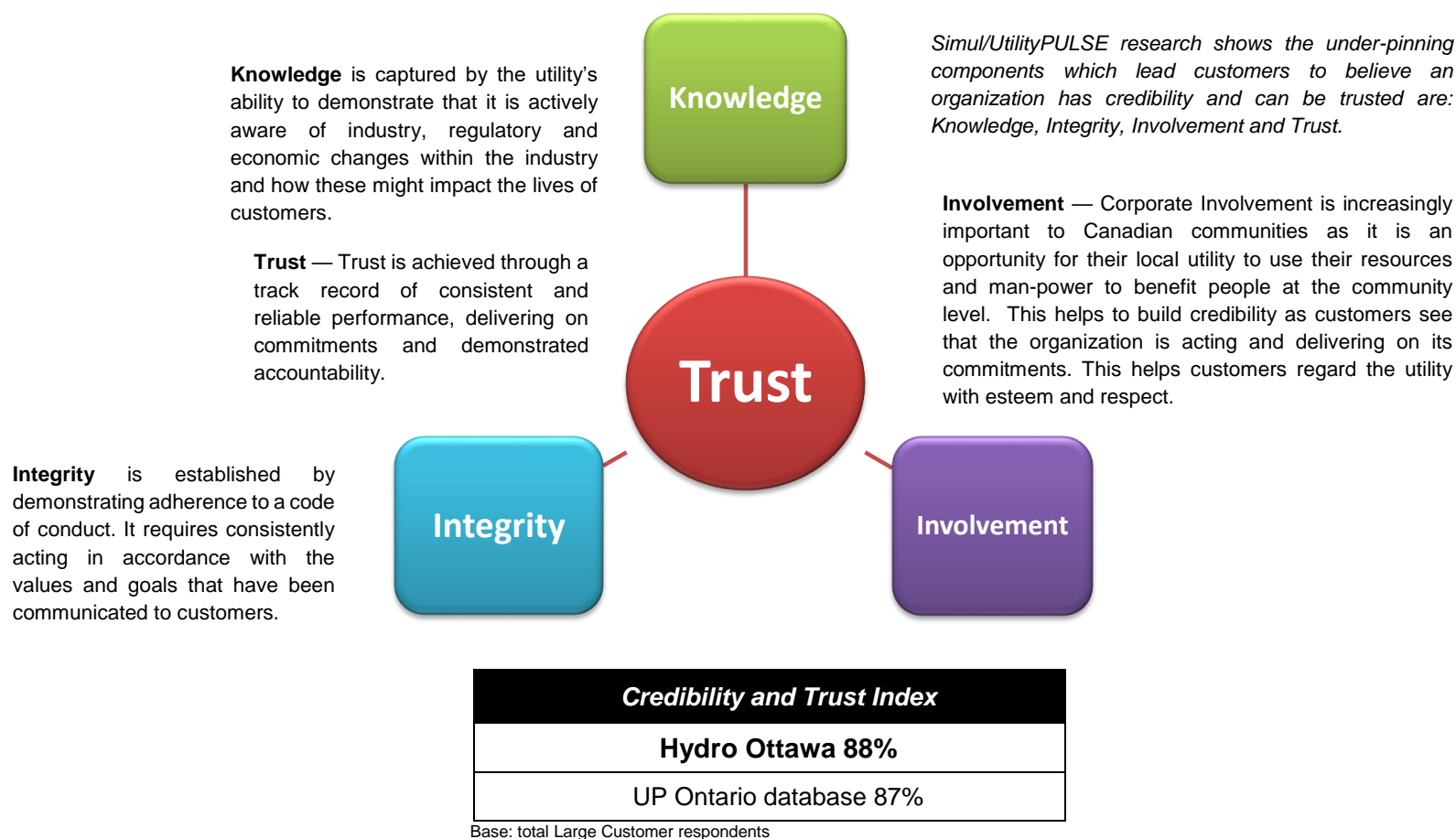
Base: total Large Customer respondents with an opinion

Creating credibility is a process, which advances only through honest, continuous communication between the utility, its regulators, and the public at large.

Pro-active and credible communications from an LDC should do three things for its customers:

- 1- demonstrate competency
- 2- build confidence and
- 3- show a future orientation.

Credibility and trust are indicators of the degree of confidence stakeholders have in your organization's ability to deliver on its commitments. Customer feelings and perceptions about the LDCs credibility and trust are outcomes based on what Hydro Ottawa does, not what it might be doing.



Brand image is the combination of customers' levels of awareness and association with the enterprise. It constitutes what customers *think* of the LDC's overall brand and what customers *feel* about the LDC based on impressions received about or interactions made with the LDC. The brand image then is built on name recognition and the belief of the organization's ability to live up to its brand promises.

Attributes strongly linked to a hydro utility's image		
Top 2 Boxes: 'strongly agree + agree'	Hydro Ottawa	UP Database
Customer focused and treats customers as if they're valued	84%	84%
Is pro-active in communicating changes & issues that may affect customers	83%	83%
Is 'easy to do business with'	86%	86%
Accurate billing	88%	88%
Delivers on its service commitments to customers	90%	89%
Keeps its promises to customers and the community	86%	85%
Is a trusted and trustworthy company	87%	89%

Base: total Large Customer respondents with an opinion

Every LDC has a brand and a brand image. While that image is affected by events in the industry beyond the control of the LDC, the reality is there is a cost benefit to improving the customer experience, generating higher levels of customer engagement and growing the loyalty, i.e., affinity level with your customers. Customers expect their LDC will conduct its business professionally **AND** be a proactive enterprise.

# How can service to customers be improved?

Business success and survival hinges on an organization's ability to continuously improve everything it does. Your Large customers were asked for their input on service improvements. Using their responses as a guide will help you to identify which services you are offering are meeting your business objectives or addressing your customers' needs.

In addition, Hydro Ottawa should:

- Identify process bottlenecks so that you can make changes to drive service improvement
- Report key over and under performance indicators to all levels of your organization to help everyone focus on meeting your committed service levels
- Make business service data immediately accessible and actionable so that you can confidently make business decisions
- Invest to help employees succeed. By and large, employees want to perform well at their jobs. But improvements will be slow or nonexistent if people are dealing with outdated tools or policies that hinder them from delivering optimal performance.



Here is what some of your Large customers had to say:

And we are interested in knowing what you think are the one or two most important things 'your local utility' could do to improve service		
	Hydro Ottawa	UP Database
Better prices / lower prices	24%	22%
Satisfied / no problem	22%	21%
Restore power faster	9%	16%
Improve billing / simplify the bill	10%	8%
More energy conservation information	4%	7%
Faster customer service response times	5%	7%
Better communication i.e., notice of work	5%	7%
Be more environmentally friendly	1%	5%
Upgrade infrastructure	4%	4%
Improve website	4%	4%
More information during outages	2%	3%
Other	6%	7%

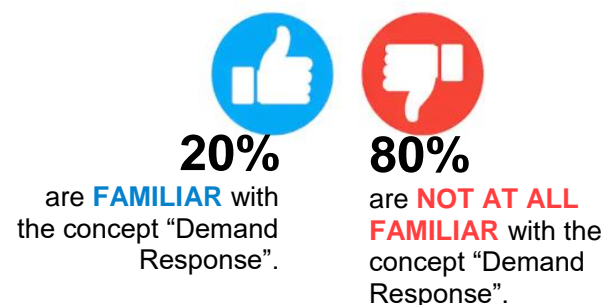
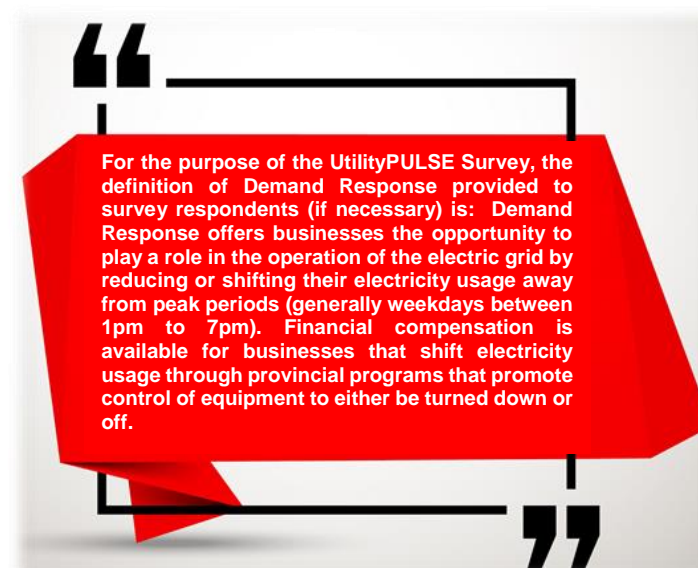
Base: total Large Customer respondents who made recommendations

# Demand Response

Demand response, the adjustment of electrical load operations to provide grid services, has been used for decades to make utility operations and planning more efficient and less capital intensive. Although Demand Response may often be complementary to energy efficiency, Demand Response is about shifting demand rather than reducing it. Demand Response (DR) is a mechanism which utilities can use to manage system loads that ensure reliability or mitigate price spikes by encouraging customers to reduce demand during peak periods or shift loads from peak to off-peak hours.

Familiarity with the concept – “Demand Response”	
	Hydro Ottawa
Very familiar	8%
Somewhat familiar	12%
I’ve heard the term	18%
Not at all familiar	62%

Base: total Large Customer respondents



Of those 49 Large Customer survey respondents who were either very familiar or somewhat familiar with the concept of “Demand Response”, **74%** said they were interested (‘very + somewhat’) in implementing some form of “Demand Response” program to reduce their costs of electricity during peak times.

Base: total Large Customer respondents who were either very familiar or somewhat familiar with “Demand Response”  
Top 2 Boxes: ‘Very + Somewhat interested’

**interested**

**74%**

are **INTERESTED** in **implementing** some form of “Demand Response” program to reduce their costs of electricity during peak times.

**not interested**

**22%**

are **NOT INTERESTED** in **implementing** some form of “Demand Response” program to reduce their costs of electricity during peak times.

When asked, “How interested would you be in learning more...

**interested**

**68%**

are **INTERESTED** in **learning more about participating** in a “Demand Response” program to reduce their costs of electricity during peak times.

**not interested**

**30%**

are **NOT INTERESTED** in **learning more about participating** in a “Demand Response” program to reduce their costs of electricity during peak times.

# Electricity Consumption Data

Hydro Ottawa's Large Customer survey respondents were asked about the importance of having access to their electricity consumption data for purposes of further analysis in addition to receiving monthly billing information.

Importance of having access to electricity consumption data	
Hydro Ottawa	
Top 2 Boxes: 'Very + Somewhat important'	92%
Very important	60%
Somewhat important	32%
Not important	8%

Base: total Large Customer respondents



**92%**

feel it is **IMPORTANT** to have access to electricity consumption data for purposes of further analysis.

Hydro Ottawa Large Customer respondents said: "At the end of the day, it is about energy costs."; "Additional reporting on consumption levels would be good." And "Provide additional services related energy billing information, like the example energy consumption data accessible through a portal."

The 219 Large Customer respondents who indicated it was important to have access to electricity consumption data for further analysis were asked about the type of format/presentation they would prefer in which to see their consumption data.

Preferred type of format/presentation of electricity consumption data	
	Hydro Ottawa
Data file containing basic consumption data	13%
View data presented in an easy to understand format (i.e. graphic format)	46%
Advanced analytics offering recommendations and consumption insights	38%

Base: total Large Customer respondents who feel it is 'important' to have access to electricity consumption data

For those Large Customer respondents who preferred "Advanced analytics offering recommendations and consumption insights", Hydro Ottawa was interested in obtaining 2 additional pieces of information:

- 1) if there was a willingness to pay a reasonable flat monthly fee to receive the advanced analytics with recommendations: 28% YES, 61% NO, 11% Don't know

Base: N=83 Large Customer respondents who preferred "Advanced analytics offering recommendations and consumption insights"



**28%**  
 said they **were willing** to pay a **reasonable flat monthly fee** to receive the advanced analytics with recommendations.

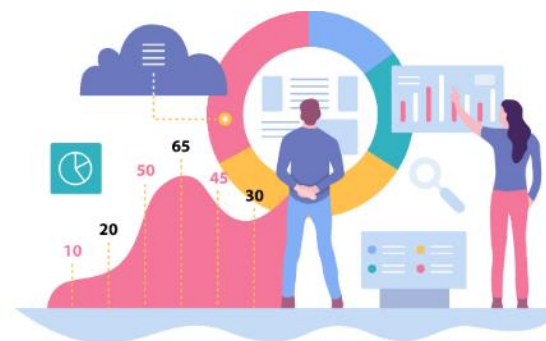


**61%**  
 said they **were NOT willing** to pay a **reasonable flat monthly fee** to receive the advanced analytics with recommendations.

2) which of the following are important reasons for requesting advanced analytic data?

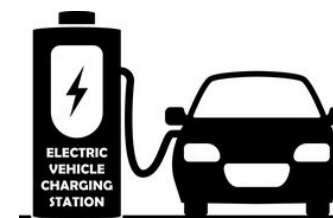
Which of the following are important reasons for requesting advanced analytic data?	
	Hydro Ottawa
Identifying energy conservation opportunities	88%
Identifying demand response/peak reduction opportunities	80%
Electricity portfolio management & comparison purposes	72%
Mandatory reporting obligations	61%

Base: N=83 Large Customer respondents who preferred "Advanced analytics offering recommendations and consumption insights"



# Electric vehicle charging stations

As the public begins embracing a shift to the electric car, there are critical issues surrounding the infrastructure required to charge them. Will electric vehicles (EVs) plug in at a driver's garage or workplace, or do we start building outlet stations where you plug in for a quick recharge or switch batteries to a fully charged battery, or do we work on creating a global network of roadside outlet recharging stations?



**2% of Large Customer respondents say they have at least 2 Electric vehicle charging stations in Hydro Ottawa's service territory.**

Hydro Ottawa Large Customer survey respondents were asked about the number of charging stations existing currently in the service territory of Hydro Ottawa.

<i>"How many electric vehicle charging stations do you have in facilities in the service territory of Hydro Ottawa?"</i>		
<b>Hydro Ottawa</b>	<b>2017</b>	<b>2019</b>
Zero	43%	27%
One	4%	2%
Two	2%	2%
Three	1%	1%
Four	1%	1%
Five +	5%	6%
Don't know	44%	61%

Base: total Large Customer respondents

Respondents who said “zero” or “don’t know” were asked: *“Will your organization be installing electric vehicle charging stations in the next 12 months?”*

Planning to install electric vehicle charging stations in the next 12 months		
Hydro Ottawa	2017	2019
Yes	8%	9%
No	82%	85%
Don't know	10%	7%

Base: total Large Customer respondents who said “zero or don’t know” to quantity of electric vehicle charging stations which currently exist the LDC’s service territory, may not add to 100% due to rounding. N=211



**9% are planning to install electric vehicle charging stations in the next 12 months vs 5% in the UP database.**

Base: total Large Customer respondents who said “zero or don’t know” to quantity of electric vehicle charging stations which currently exist the LDC’s service territory

Respondents who said they currently have “one” or more charging stations were asked: *“Will your organization be installing additional electric vehicle charging stations in the next 12 months?”*

Planning to install ADDITIONAL electric vehicle charging stations in the next 12 months		
Hydro Ottawa	2017	2019
Yes	28%	38%
No	65%	55%
Don't know	8%	7%

Base: total Large Customer respondents who said “one” or more to quantity of electric vehicle charging stations which currently exist the LDC’s service territory, may not add to 100% due to rounding. N=29



**38% are planning to install ADDITIONAL electric vehicle charging stations in the next 12 months vs 16% in the UP database.**

Base: total Large Customer respondents who said “one” or more to quantity of electric vehicle charging stations which currently exist the LDC’s service territory

Of those Large Customer respondents who said “yes” that they planned to install *additional* electric vehicle charging stations or were organizations who currently did not have any electric vehicle charging stations but planned to initiate an installation, we asked:

*“Approximately how many electric vehicle charging stations would your organization be installing in facilities located in the service territory of Hydro Ottawa”*

Number of electric vehicle charging stations planned to be installed over the next 12 months		
Hydro Ottawa	2017	2019
Zero	3%	0%
One	19%	17%
Two	26%	21%
Three	13%	10%
Four	13%	3%
Five +	26%	48%



Base: total Large Customer respondents who said “yes” that they planned to install *additional* electric vehicle charging stations in the next 12 months N=29

# Priority Planning

[Note: the following information is an extract from the Fall 2019 UtilityPULSE database.] The 2019 respondents to the Large Customer survey were asked to prioritize various operational activities and financial investments. Prioritizing activities helps to ensure your organization is working on the important ones first. After-all there are only so many resources and hours in a day. By engaging stakeholders and obtaining their input in undertaking a priority planning process helps to mitigate the tendency, with most management teams, to make everything a high priority. If everything becomes “urgent” or “high priority”, then everything loses its “high priority.” In short, if everything is important, then nothing is most important.

What we know about LCs is, electricity is a cost and can affect a company’s profitability. The three top priorities are: investing more in the electricity grid to reduce outages; maintaining and upgrading equipment; and, reducing response times to outages.

Ontario Large Customer respondents were asked to comment on the priority level of the implementation or execution 17 different initiatives/projects which encompass operational aspects and/or financial commitment.



Priority Planning within the next 5 years	
Top 2 Boxes: 'very high + high priority'	UP Database
Maintaining and upgrading equipment	89%
Reducing response times to outages	87%
Investing more in the electricity grid to reduce outages	83%
Investing in projects to reduce the environmental impact of the utility's operations	79%
Educating customers about energy conservation	76%
Educating the public as it relates to electricity safety	73%
Improving power quality	72%
Providing expertise to commercial customers regarding changes in energy technology	71%
Coordinating infrastructure planning with commercial customers	71%
Investing more in tree trimming to help reduce the number of outages	68%
Exhibiting strong leadership in the electricity industry	59%
Burying overhead wires	57%
Providing sponsorships to local community causes	46%
Developing a SMART phone application to allow you to view usage and pay your bill	46%
Engaging with commercial customers on a more frequent basis	44%
Providing more self-serve services on the website	43%
Making better use of social media (such as Twitter, Facebook, etc.)	24%

Base: total Large Customer respondents; extract from the UtilityPULSE database Fall 2019



Priority Planning for the next 5 years	
Bottom 2 Boxes: 'low + very low priority'	UP Database
Making better use of social media (such as Twitter, Facebook, etc.)	34%
Developing a SMART phone application to allow you to view usage and pay your bill	24%
Providing more self-serve services on the website	23%
Providing sponsorships to local community causes	23%
Engaging with commercial customers on a more frequent basis	22%
Burying overhead wires	13%
Exhibiting strong leadership in the electricity industry	11%
Investing more in tree trimming to help reduce the number of outages	11%
Educating customers about energy conservation	9%
Educating the public as it relates to electricity safety	9%
Providing expertise to commercial customers regarding changes in energy technology	8%
Coordinating infrastructure planning with commercial customers	7%
Investing in projects to reduce the environmental impact of the utility's operations	7%
Investing more in the electricity grid to reduce outages	5%
Improving power quality	5%
Reducing response times to outages	3%
Maintaining and upgrading equipment	2%

Base: total Large Customer respondents; extract from the UtilityPULSE database Fall 2019



## Thinking ahead... a look into the future

Looking through the microscope while simultaneously looking through the telescope is what helps companies be more relevant & successful today while they prepare to be successful again “tomorrow” in a changed world. Though there are many factors which can affect the level of consumption for larger customers, your 2019 survey did ask respondents about the future.



...Thinking ahead over the next 1-2 years do you anticipate any changes to your business that would affect electricity consumption more than 5% up or down?		
	Hydro Ottawa	UP Database
Yes	24%	25%
No	70%	69%
Not at liberty to say	0%	1%
Don't know	6%	5%

Base: total Large Customer respondents

For those who did anticipate a change of more than 5% up or down:

...Could you tell us what might cause this change to electricity consumption...		
	Hydro Ottawa	UP Database
<b>Business is growing</b>	23%	33%
<b>New machinery/change equipment</b>	7%	10%
<b>More work (e.g., products and services are being added)</b>	5%	12%
<b>More efficient lighting</b>	12%	9%
<b>Implementing conservation measures</b>	30%	21%
<b>Generating own electricity</b>	2%	4%
<b>More space, expansion</b>	7%	4%
<b>Moving to another location</b>	0%	1%
<b>Costs</b>	7%	5%
<b>Downsizing</b>	0%	1%

Base: total Large Customer respondents

# Energy Storage

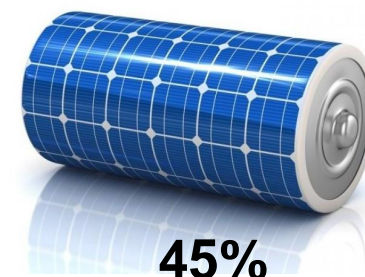
**Definition:** Energy storage is the capture of energy produced at one time for use at a later time.

Energy storage is something that more and more LCs are thinking about. Battery storage technologies along with other energy storage equipment seem to be going from being unfamiliar and novel to being known and economically sensible. The ability to fill up batteries with power (from off-peak times) for peak-shifting and storing production seems to be gaining the interest of consumers and operators alike.

*“Prior to this interview how familiar are you with the subject of energy storage?”*

Familiarity with energy storage such as batteries and other equipment		
	Hydro Ottawa	UP Database
Very familiar	12%	9%
Somewhat familiar	33%	31%
Neither familiar or unfamiliar	0%	2%
Not too familiar	28%	31%
Not at all familiar	26%	28%
Don't know	0%	0%

Base: total Large Customer respondents, may not add to 100% due to rounding



**45%**  
 are familiar with energy storage such as batteries and other equipment.

Base: total Large Customer respondents:  
 Top 2 Boxes: 'very + somewhat familiar'

Your LC survey respondents were asked about their familiarity with energy storage technologies: 45% of respondents indicated they were either "very or somewhat familiar" vs 40% in the UP database, 55% were "not at all or not too familiar" vs 59% in the UP database.



If utilities could store power during periods of low demand, then release it during peak times it would save a considerable sum of money on capital costs, while also smoothing out frequency variations and providing voltage support. Same could be said for business owners; valuable energy can be saved by storing surplus electricity in an energy storage system, and using it when needed.

Also, a business energy storage system could act as a substitute for emergency generators during a power outage. Your LC respondents who indicated they had some familiarity with the subject of energy storage were asked about their interest in implementing energy storage in the next 3 years:

64% responded they were interested (“very + somewhat interested”) vs. 69% in the UP database, while 34% expressed disinterest (“definitely + somewhat not interested”) vs. 29% in the UP database.

Interest in implementing energy storage in the next 3 years		
	Hydro Ottawa	UP Database
Very interested	23%	23%
Somewhat interested	41%	46%
Neither interested or uninterested	0%	0%
Somewhat not interested	12%	11%
Definitely not interested	22%	18%



**64% are interested in implementing energy storage in the next 3 years.**

Base: total Large Customer respondents who were familiar with energy storage, may not add to 100% due to rounding



## **Appendix A: Standard recommendations for your next Large Customer Survey**

History and experience tell us this group of customers are notoriously difficult to connect with and to do a survey with. Anyone in a managerial or professional position, in any company, is time-pressed. To improve the willingness of prospective respondents to participate in future LC surveys we recommend:

1. Continuously improving the quality of customer information contained in your system remains a highly important activity. We recommend conducting a verification check, at least annually.
2. Set up a system to send a pre-notification letter/postcard/email to customers or a department (if the name is unknown) letting them know about the upcoming survey and how they could go about updating their contact information; when the survey is conducted again in the future.
3. Where Hydro Ottawa has assigned major accountant customer responsibilities to specific personnel, consider having them reach out to their assigned accounts before conducting the next survey.
4. Send out a “thank you for participating in the survey” memo/letter/email with some highlights.
5. Track LC customer inquiries to help shape questions in future surveys.



## **Appendix B: Standard Operational recommendations:**

- 1- Key-account management principles continue to evolve. A review of strategies, policies, and standards can be a productive exercise. Continue to review your definition of Key Accounts and then refine your Key Account Management (KAM) strategy & goals.
- 2- Update formal visitation standards, i.e., who visits which companies with a focus on both subject matter and frequency of the visit.
- 3- We recommend updating industry segment information for your LCs. Over time, and as customer information systems become more robust, client issues & comparisons could be generated by industry segment.
- 4- As stated in the body of the report, attributes with the highest “don’t know” answers or largest standard deviations represent a communication and educational opportunity.
- 5- When/if there is an invoicing inquiry, we recommend that the assigned Hydro Ottawa account professional be made aware of the inquiry and the outcome (assuming the invoice issue didn’t come through the assigned representative).
- 6- Develop consistent answers to the top inquiries that LCs make.
- 7- As we look into the future, we believe setting up a pattern of communications to solicit “viewpoints” and “feedback” will become increasingly important to all parties.



- 8- Look for ways to provide additional value to your Key Accounts such as:
- a. Holding an on-site seminar regarding energy conservation for employees
  - b. Conducting an energy consumption review
  - c. Use power quality measuring equipment for monitoring quality.
- 9- Energy storage will become a larger opportunity/issue in the future for every LDC. Internal discussions about how to handle questions about this subject should take place sooner rather than later.
- 10-In 2020 your LDC will be reporting results from its “public safety” survey as this is a measurement on an LDC’s scorecard. Targeted information sessions/seminar on the premises of the larger commercial customer could potentially be a way to educate more people in the community about electricity safety and being seen as providing value.
- 11-In addition to #10, identifying Key Accounts with active Safety Committees could present an excellent opportunity to provide electricity safety information.
- 12-We recommend being active in local chapters of building, developer, general contractor and electrical contractor associations.
- 13-With increasingly society complexities and rising “disruptive activity” we highly recommend running “mock” emergency scenarios.
- 14-Create a system of follow-up for any inquiry that an LC makes.



15-We believe data analytics will become more important to the LC customer base, as such, we recommend internal discussions about the degree of support your LDC is willing to give LCs.

16-Regarding #15. We have a sense that data analytics could be a value-added LDC product that may LC would pay a reasonable price for being able to access and analyze their data – especially if the service contained recommendations.



## Method

The findings in this report are based on telephone interviews conducted for Simul Corp./ UtilityPULSE by the Logit Group between August 19 - October 4, 2019, with respondents have the responsibility to interact with their electric utility when there is an outage.

The sample of phone numbers chosen was drawn randomly to ensure each customer account phone number on the list had an equal chance of being included in the poll.

Small sizes in this customer segment are very small. As such we recommend interpreting the data as “directional information” only. Small sample sizes have a wider margin of error. UtilityPULSE provides you with its database information to help interpret results.

The margin of error for the sub-samples is larger. To see the error margin for subgroups, use the calculator at <http://www.surveysystem.com/sscalc.htm>.

The margin of error refers only to sampling error; other non-random forms of error may be present. Even in true random samples, precision can be compromised by other factors,

such as the wording of questions or the order in which questions were asked.

Random samples of any size have some degree of precision. A larger sample is not always better than a smaller sample. The important rule in sampling is not how many respondents are selected but how they are selected. A reliable sample selects poll respondents randomly or in a manner that ensures that everyone in the population being surveyed has an equal chance of being selected. Completing 240 surveys in a population sample size of approximately 2,317 generates a margin of error of +/- 6.00%, 19 times out of 20.

Data from the UtilityPULSE database is comprised of Ontario based customers [>50kW] - Large Commercial customer surveys completed throughout the previous 12 months.

Interviewers completed 240 surveys from a randomly generated customer list supplied by Hydro Ottawa. Cooperation from respondents, when reached, was very good with a participation ratio of 24.0%.



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 Effectiveness, Managerial Competencies

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**Your personal contact is:**

**Sid Ridgley**

**Phone: (905) 895-7900 Fax: (905) 895-7970 E-mail: [sridgley@simulcorp.com](mailto:sridgley@simulcorp.com)**

**INTERROGATORY RESPONSE - CCC-15**

**CCC-15**

EXHIBIT REFERENCE:

**(Ex. 1-1-9, p. 9)**

SUBJECT AREA: Customer Engagement

What was the total cost of the customer engagement activities that were undertaken from January-September 2019? How were those costs recovered or how will they be recovered?

**RESPONSE:**

Hydro Ottawa undertook targeted customer outreach activities to inform the development of the specific plans and proposals set forth in its 2021-2025 rate application. Consisting of a mix of qualitative and quantitative methodologies, this engagement was launched in January 2019 and extended through September 2019.

The total cost of the customer engagement activities (including tax) was \$304,753, broken down as follows:

- Workbook Design and Production (translation): \$2,136
- Workbook Promotion (including workshop): \$81,117
- Services of Innovation Research Group Inc. (Phase I and II): \$217,000
- Presentation of Workbook at OEB Offices on June 11, 2019 (travel and overnight accommodation for four staff): \$4,500

For the purposes of cost recovery, Hydro Ottawa has included the budgeted amount of consultants to be recovered as part of the one-time regulatory costs related to the completion of the 2021-2025 Rate Application. Please refer to UPDATED Attachment 4-2-4(A): OEB Appendix

- 1 2-M - Regulatory Cost Schedule. In addition, please see the response to interrogatory VECC-75
- 2 for budgeted consultant costs.

**INTERROGATORY RESPONSE - CCC-16**

**CCC-16**

EXHIBIT REFERENCE:

**(Ex. 1-1-9, p. 9-11)**

SUBJECT AREA: Customer Engagement

In carrying out its targeted customer outreach activities to inform the specific plans and proposals set forth in its 2021-2025 rate application, were customers ever informed that included in rates is an allowed Return on Equity? If so, please describe what customers were told with respect to the ROE. If not, why were they not?

**RESPONSE:**

No, customers were not informed as part of the 2021-2025 rate application customer engagement that an allowed Return on Equity ("ROE") is included in rates.

The OEB has acknowledged that, *"finding the correct balance between the level of detail provided and the willingness of customers to engage in a consultation process is difficult as there is only limited time that a customer is able to commit."*<sup>1</sup> It was decided that the level of detail required to adequately address the concept of ROE could cause a degree of confusion and potentially detract from the very specific objectives of this customer engagement – to understand customer needs and preferences (Phase I) and to present choices within Hydro Ottawa's 2021-2025 draft plan (Phase II).

<sup>1</sup> Ontario Energy Board, *Decision and Order*, EB-2018-0165 (December 19, 2019), page 9.

**INTERROGATORY RESPONSE - CCC-17**

**CCC-17**

EXHIBIT REFERENCE:

**(Ex. 1-1-9, p. 16)**

SUBJECT AREA: Business Plan

a) The Business Plan states that, "The footprint and dispersion of distribution utilities throughout Eastern Ontario means that Hydro Ottawa remains well-positioned to pursue consolidation opportunities." Does Hydro Ottawa currently have plans to acquire or merge with other LDCs? Please explain how the pursuit of consolidation opportunities is funded? Is this done within the LDC or the holding company? Has Hydro Ottawa included in its budgets amounts related to consolidation? If so, please set out those amounts.

---

**RESPONSE:**

a) Hydro Ottawa does not have plans at this time to merge with or acquire any other utilities in Eastern Ontario. The utility is open to the prospect of mergers and acquisitions in the situation where there is a willing seller and a willing buyer, and where customers will be better off as a result of the merger or acquisition.

Hydro Ottawa has not included any costs in its budgets associated with mergers and acquisitions.

**INTERROGATORY RESPONSE - CCC-18**

**CCC-18**

EXHIBIT REFERENCE:

**(Ex 1-1-9, p. 29)**

SUBJECT AREA: Business Plan

In the Business Plan it states, "In the last year of publicly available data collected by the OEB, Hydro Ottawa's total operating cost per customer was \$260. Consistent with the pattern of recent years, this compared favourably to the average cost per customer across all electricity distributors in the province (\$316)." What is the cost per customer for 2021 calculated on the same basis as the \$260? What is the cost per customer for 2019 and 2020?

**RESPONSE:**

Please see UPDATED Attachment 4-1-3(C): OEB Appendix 2-L - Recoverable OM&A Cost per Customer and per Full Time Equivalent. The cost per customer for each of 2019, 2020, and 2021 is \$245, \$269, and \$272, respectively - all calculated on the same basis as \$260 Total OM&A per customer for 2018.

**INTERROGATORY RESPONSE - CCC-19**

**CCC-19**

EXHIBIT REFERENCE:

**(Ex. 1-1-9, p. 30)**

SUBJECT AREA: Business Plan

In the Business Plan it states that, "Certain proposals for capital spending have been deferred, as part of an asset needs rationalization process which was undertaken in order to prioritize the most critical projects for system reliability and maintenance and to identify opportunities for minimizing rate impacts". Please identify all of the proposals for capital spending that have been deferred, and when they are expected to be undertaken?

**RESPONSE:**

Please refer to Attachment CCC-19(A): Investment Scenario Comparison for a comparison of the initial needs proposal versus the final proposal that was submitted subsequent to the rationalization process. The projects which have been deferred are expected to be undertaken during the next rate filing period (2026-2030), but would be subject to the Capital Expenditure Process detailed in section 5.2 of Exhibit 2-4-3: Distribution System Plan.

			Syr Average		5 yr Investment Total		
Investment Category	Capital Program	Budget Program	Proposal 1 (\$k)	Proposal 2 DSP Scenario (\$k)	Proposal 1 (\$k)	Proposal 2 DSP Scenario (\$k)	
System Renewal	92099901 - Station Assets Renewal	9202002614 - Station Transformer Renewal	\$ 6,627	\$ 473	\$ 33,135	\$ 2,365	
		9202003371 - Station Switchgear Renewal	\$ 7,400	\$ 1,343	\$ 37,001	\$ 6,715	
		9202012238 - Station Battery Renewal	\$ 104	\$ 84	\$ 520	\$ 421	
		9202003405 - Station P&C Renewal	\$ 404	\$ 239	\$ 2,019	\$ 1,194	
		9202012236 - Station Minor Assets Renewal	\$ 530	\$ 622	\$ 2,649	\$ 3,109	
		9202012234 - Station Major Rebuild	\$ -	\$ 6,681	\$ -	\$ 33,404	
		Total Station Assets Renewal	\$ 15,065	\$ 9,441	\$ 75,325	\$ 47,206	
	92099926 - OH Distribution Assets Renewal	9202000021 - Pole Renewal	\$ 10,546	\$ 8,035	\$ 52,730	\$ 40,175	
		9202000022 - Insulator Replacement	\$ -	\$ -	\$ -	\$ -	
		9202000026 - OH Transformer Renewal	\$ -	\$ -	\$ -	\$ -	
		9202001860 - OH Switch/Recloser Renewal	\$ 740	\$ 460	\$ 3,701	\$ 2,299	
		Total OH Dist Asset Renewal	\$ 11,286	\$ 8,495	\$ 56,431	\$ 42,474	
	92099958 - UG Distribution Assets Renewal	9202000027 - Vault Renewal	\$ 500	\$ 496	\$ 2,500	\$ 2,480	
		9202001363 - Civil Renewal	\$ 2,701	\$ 1,010	\$ 13,503	\$ 5,050	
		9202001856 - Cable Replacement	\$ 12,702	\$ 8,883	\$ 63,510	\$ 44,414	
		9202001859 - UG Switchgear Renewal	\$ 1,215	\$ 605	\$ 6,075	\$ 3,024	
		9202012230 - UG Transformer Renewal	\$ 1,674	\$ 43	\$ 8,369	\$ 216	
		Total UG Dist Asset Renewal	\$ 18,791	\$ 11,037	\$ 93,956	\$ 55,184	
	92099959 - Corrective Renewal	Damage to Plant	\$ 1,030	\$ 4,482	\$ 5,149	\$ 22,409	
		9202002191 - Emergency Renewal	\$ 3,600	\$ 4,297	\$ 18,000	\$ 21,487	
		9202014035 - Critical Renewal	\$ 5,400	\$ 1,040	\$ 27,000	\$ 5,198	
		Total Corrective Renewal	\$ 10,030	\$ 9,819	\$ 50,149	\$ 49,095	
	92099992 - Metering Renewal	9202014420 - Metering Upgrades	\$ -	\$ 2,690	\$ -	\$ 13,450	
		Total Metering Renewal	\$ -	\$ 2,690	\$ -	\$ 13,450	
		Total System Renewal	\$ 55,172	\$ 41,482	\$ 275,860	\$ 207,409	
	92099902 - Capacity Upgrades	9202003519 - Stations Capacity Upgrades	\$ 12,863	\$ 11,021	\$ 64,314	\$ 55,106	
		9202014015 - Distribution Capacity Upgrades	\$ 5,798	\$ 4,149	\$ 28,990	\$ 20,743	
		Total Capacity Upgrades	\$ 18,661	\$ 15,170	\$ 93,304	\$ 75,849	
		92099927 - Distribution Enhancements	9202002626 - Distribution System Reliability	\$ 3,460	\$ 2,664	\$ 17,300	\$ 13,319
			9202002622 - System Voltage Conversion	\$ 4,770	\$ 1,173	\$ 23,850	\$ 5,864
			9202003370 - Distribution Enhancements	\$ 830	\$ 3,176	\$ 4,150	\$ 15,880
			Total Distribution Enhancements	\$ 9,060	\$ 7,013	\$ 45,300	\$ 35,063
		92099941 - Grid Technologies	9202000045 - SCADA Upgrades	\$ 610	\$ 1,485	\$ 3,050	\$ 7,425
			9202000046 - RTU Upgrades	\$ 1,500	\$ 253	\$ 7,500	\$ 1,267
			9202012240 - Communication Infrastructure	\$ 1,038	\$ 1,392	\$ 5,190	\$ 6,958
	Total Grid Technologies		\$ 3,148	\$ 3,130	\$ 15,740	\$ 15,650	
92099903 - Stations Enhancements	9202000044 - Stations Enhancements	\$ 538	\$ 548	\$ 2,691	\$ 2,739		
	Total Stations Enhancement	\$ 538	\$ 548	\$ 2,691	\$ 2,739		
92099991 - Metering	Replace metering fleet	\$ 6,000		\$ 30,000	\$ -		
	Communications Medium upgrade	\$ 400		\$ 2,000	\$ -		
	Upgrade metering services to standardized installation	\$ 560		\$ 2,800	\$ -		
	9202003564 - Remote Disconnected Smrt Meter	\$ -	\$ 501	\$ -	\$ 2,505		
	Total Metering	\$ 6,960	\$ 501	\$ 34,800	\$ 2,505		
	Total System Service	\$ 38,367	\$ 26,361	\$ 191,835	\$ 131,806		
GRAND TOTAL			\$ 93,539	\$ 67,843	\$ 467,695	\$ 339,215	

**INTERROGATORY RESPONSE - CCC-20**

**CCC-20**

EXHIBIT REFERENCE:

**(Ex. 1-1-9, pp. 31-32)**

SUBJECT AREA: Business Plan

For each of the productivity initiatives that were identified in the Business Plan please provide the level of net savings achieved.

**RESPONSE:**

Please see the response to interrogatory OEB-47.

**INTERROGATORY RESPONSE - CCC-21**

**CCC-21**

EXHIBIT REFERENCE:

**(Ex. 1-1-9, pp. 32-33)**

SUBJECT AREA: Business Plan

For each of the productivity initiatives identified in the Business Plan for the 2021-2025 period, please provide the forecast net savings.

**RESPONSE:**

Please see the response to interrogatory OEB-47.

**INTERROGATORY RESPONSE - CCC-22**

**CCC-22**

EXHIBIT REFERENCE:

**(Ex. 1-1-9, p. 38)**

SUBJECT AREA: Customer Engagement

Residential distribution rates, as proposed, are expected to increase by an average of 4.44% each year of the rate plan period. In its customer engagement activities, were the distribution rate impacts as set out in Table 7 of the Business Plan provided to customers? If not, why were they not?

**RESPONSE:**

Please see part (e) of the response to interrogatory OEB-53.

## INTERROGATORY RESPONSE - CCC-23

**CCC-23**

EXHIBIT REFERENCE:

**(Ex. 1-1-10, pp. 13-14)**

SUBJECT AREA: Custom Incentive Rate-Setting Framework

Hydro Ottawa is proposing to use an inflation factor that is derived from a different weighting of the two sub-indices relative to the OEB inflation factor calculation. If Hydro Ottawa used the OEB approach how would this impact the 2022 revenue requirement calculation?

**RESPONSE:**

If Hydro Ottawa used the OEB approach to calculate its inflationary factor with a 70% non-labour weighting and a 30% labour weighting, its inflationary factor would be calculated as 2.18%.<sup>1</sup> Inserting this inflationary factor into Hydro Ottawa's Custom Price Escalation Factor would render an escalation of 2.43%:

$$\begin{aligned} &= I - X + g \\ &= 2.18 - 0.15 + 0.4 \\ &= 2.43\% \end{aligned}$$

Using an escalation factor of 2.43%, rather than Hydro Ottawa's proposed escalation factor of 2.51%, would result in a difference of \$75,138 in the utility's 2022 OM&A requirement, as shown in Table A below.

<sup>1</sup> For calculations on re-weighting the inflation factor to a 70/30 split, see the response provided for interrogatory VECC-5.

1 **Table A – 70/30 vs. 55.5/44.5 Labour/Non-Labour Weight and Impact on OM&A**

Escalation Factor	Labour/ Non-Labour Weighing	2021 OM&A	2022 OM&A
2.51%	55.5% Labour/ 45.5% Non-Labour	\$93,922,657	\$96,280,116
2.43%	30% Labour/ 70% Non-Labour	\$93,922,657	\$96,204,978
<b>DIFFERENCE IN 2022 OM&amp;A</b>			<b>\$75,138</b>

2

3 If Hydro Ottawa were to use the OEB's approach, the 2022 Revenue Requirement would  
4 decrease by \$75,530. The impact to the 2022 Revenue Requirement has been highlighted  
5 below in Table B. Please refer to UPDATED Exhibit 6-1-1: Calculation of Revenue Deficiency or  
6 Sufficiency, Table 2, for the 2021-2025 revenue requirements using Hydro Ottawa's proposed  
7 escalation factor.

8

9 **Table B – 2022 Revenue Requirement with Revised Escalation Factor (\$'000s)**

	2022 Updated	2022 CCC-23	Variance
Return on Rate Base	\$74,253	\$74,253 <sup>2</sup>	\$0
Distribution Expenses (not including amortization)	\$96,280	\$96,205	\$75
Amortization	\$56,699	\$56,699	\$0
Payment in Lieu of Taxes	\$3,881	\$3,880	\$1
<b>Service Revenue Requirement</b>	<b>\$231,113</b>	<b>\$231,037</b>	<b>\$76</b>
Less Revenue Offsets	\$10,971	\$10,971	\$0
<b>Base Revenue Requirement</b>	<b>\$220,142</b>	<b>\$220,066</b>	<b>\$76</b>
Transformer Ownership Credit	\$1,056	\$1,056	\$0.
<b>Revenue Requirement from Rates</b>	<b>\$221,197</b>	<b>\$221,122</b>	<b>\$75</b>

10

11 <sup>2</sup> Difference does not show in rounding to thousands.

**INTERROGATORY RESPONSE - CCC-24**

**CCC-24**

EXHIBIT REFERENCE:

**(Ex. 1-1-10)**

SUBJECT AREA: Custom Incentive Rate-Setting Framework

a) Is Hydro Ottawa of the view that its Custom IR proposals are consistent with the OEB policies set out in its Rate Handbook?

**RESPONSE:**

a) Yes, Hydro Ottawa is of the view that its current Custom IR application is consistent with the policies set out in the OEB's *Handbook for Utility Rate Applications* and with the Renewed Regulatory Framework ("RRF"). Hydro Ottawa has demonstrated its consistency with the RRF by way of the information presented in UPDATED Exhibit 1-1-10: Alignment with the Renewed Regulatory Framework. Please also see UPDATED Exhibit 1-1-4: Administration and UPDATED Exhibit 1-1-8: Executive Summary for confirmation of the utility's position on its consistency with the *Handbook for Utility Rates Applications*.

**INTERROGATORY RESPONSE - CCC-25**

**CCC-25**

EXHIBIT REFERENCE:

**(Ex. 1-1-10)**

SUBJECT AREA: Custom Incentive Rate-Setting Framework

a) Please provide a complete list setting out all of the ways Hydro Ottawa's rate proposals in this Application differ from the rate proposals agreed to in EB-2015-0004

**RESPONSE:**

a) The summary of Hydro Ottawa's 2016-2020 rate proposal from EB-2015-0004 can be found in Hydro Ottawa's Custom IR Year 5 Update within Exhibit 1-2-1: Executive Summary and Exhibit 1-3-1: Administration.<sup>1</sup> The summary of Hydro Ottawa's 2021-2025 rate proposal in this Application can be found in UPDATED Exhibit 1-1-5: Application Summary and UPDATED Exhibit 1-1-8: Executive Summary.

<sup>1</sup> Hydro Ottawa Limited, *2020 Electricity Distribution Rate Application*, EB-2019-0046 (August 12, 2019).

**INTERROGATORY RESPONSE - CCC-26**

**CCC-26**

**EXHIBIT REFERENCE:**

**(Ex. 1-1-8, p. 27 and Ex. 1-1-10, p. 26)**

**SUBJECT AREA: Earning Sharing Mechanism**

a) Did Hydro Ottawa consider an ESM that has no deadband, sharing all over earnings with its customers? If not why did it not? Was the ESM proposal informed by Hydro Ottawa's customer engagement activities? If so, please explain how? If not, why was it not? Why has Hydro Ottawa changed the ESM relative to what was approved for the previous rate plan period?

**RESPONSE:**

a) Hydro Ottawa's Earnings Sharing Mechanism ("ESM") proposals for 2021-2025 are summarized on pages 29-30 of UPDATED Exhibit: 1-1-8 Executive Summary and further detailed on pages 6-8 of Exhibit 9-2-1: New Deferral and Variance Accounts.

The details of the ESM in the 2016-2020 proceeding were agreed to as part of the Settlement Process.<sup>1</sup>

Hydro Ottawa believes that an ESM, with an appropriate deadband, is responsive to both customer and shareholder needs. Please see Hydro Ottawa's response to interrogatory OEB-8 for further details.

<sup>1</sup> Hydro Ottawa Limited, 2016-2020 Custom Incentive Rate-Setting Approved Settlement Proposal, EB-2015-0004 (December 7, 2015).

**INTERROGATORY RESPONSE - CCC-27**

**CCC-27**

EXHIBIT REFERENCE:

**(Ex. 1-1-8, p. 27 and Ex. 1-1-10, p. 26)**

SUBJECT AREA: Custom Incentive Rate-Setting Framework

a) Hydro Ottawa has indicated its intent to reserve its right over the course of the rate plan term to apply for Z-factor relief. Does Hydro Ottawa agree that Z-factors are meant for both costs incurred and costs saved/revenue generated resulting from unforeseen events, decisions or activities the results of which cannot be reasonably anticipated or quantified? What is Hydro Ottawa's materiality threshold?

---

**RESPONSE:**

a) Yes, Hydro Ottawa agrees that Z factors apply to both costs incurred and costs saved/revenue generated resulting from unforeseen events, decisions, or activities the results of which cannot be reasonably anticipated or quantified.

As detailed in UPDATED Exhibit 1-1-4: Administration, Hydro Ottawa's materiality threshold is \$1.0M.

**INTERROGATORY RESPONSE - CCC-28**

**CCC-28**

EXHIBIT REFERENCE:

**(Ex. 1-1-10, p. 36)**

SUBJECT AREA: Distribution System Plan

Please provide a copy of the 2016-2020 DSP.

**RESPONSE:**

Hydro Ottawa's 2016-2020 Distribution System Plan was submitted as a part of proceeding EB-2015-0004, and can be found online using the OEB's Advanced Regulatory Document Search.<sup>1</sup> The DSP can be found on pages 7 through 320 in the file titled "HOL\_APPL\_Exhibit\_B\_Rate\_Base\_PART\_1\_20150429" submitted on 2015-04-30.

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<sup>1</sup> <http://www.rds.oeb.ca/HPECMWebDrawer/Record?q=casenum:EB-2015-0004+And+WebDocumentType:%22Application%20and%20Evidence%22&sortBy=recRegisteredOn-&pageSize=400#form1>.

**INTERROGATORY RESPONSE - CCC-29**

**CCC-29**

EXHIBIT REFERENCE:

**(Ex. 1-1-13)**

SUBJECT AREA: Productivity

Hydro Ottawa has provided in Schedule 13 a detailed report entitled, "Productivity Improvement Initiatives". For each of the prospective initiatives has Hydro Ottawa provided business cases? If so, please provide those business cases. Has Hydro Ottawa undertaken analyses to assess the net savings associated with each of these initiatives? If so, please provide those analyses.

**RESPONSE:**

For many of the 2021-2025 initiatives identified in Exhibit 1-1-13: Productivity and Continuous Improvement Initiatives, the business case in support is provided elsewhere in the Application. For example, several business cases take the form of the project proposal and analysis set forth in the corresponding Material Investment Plan ("MIP") which is contained in Attachment 2-4-3(E): Material Investments.

Table A below outlines those initiatives for which a business case, as well as any other relevant analysis in support, has been provided in a separate piece of the Application.

**Table A – 2021-2025 Productivity & Continuous Improvement Initiatives -  
Business Cases Presented in Other Application Evidence**

Productivity/Continuous Improvement Initiative	Application Evidence
Customer Relationship Management	Attachment 2-4-3(E), section 3.1.3, Service Automation
Workforce Adjustments through Grid Modernization and Business Process Enhancements	Attachment 2-4-3(E), section 2.3.3, Distribution Enhancement
AMI Analytics and Integration Enablement	Attachment 2-4-3(E), section 3.6.2, AMI Analytics and Integration Enablement
AMI System Phone Line Reduction	Attachment 2-4-3(E), section 1.5.1.3, Self-Contained Phone Line Communication Upgrade
Reduction in Fleet Assets	Attachment 2-4-3(F): Fleet Replacement Program
Digital Strategy	Attachment 1-1-13(B): Digital Strategy
Web and Multi-Channel Development	Attachment 2-4-3(E), section 3.1.4, Web Multi-Channel
Migration of ERP System to the Cloud	Attachment 2-4-3(E), section 3.2.2, ERP Program
Field Service Management	Attachment 2-4-3(E), section 3.1.3, Service Automation
Distribution Management System Enhancements	Attachment 2-4-3(E), section 2.4.1.3, Distribution Management System
Outage Management System Replacement	Attachment 2-4-3(E), section 2.4.1.1, Outage Management System Replacement
Self-Healing Grid	Attachment 2-4-3(E), section 2.4.2.1, Self-Healing Grid
IT Lifecycle Management & Ongoing Enhancements	Attachment 2-4-3(E), section 3.4.1, IT Lifecycle and Ongoing Enhancements
Workforce Planning	Attachment 4-1-5(B): Workforce Planning Strategy
Leveraging Technology for Business Process Automation & Training <sup>1</sup>	Attachment 1-1-13(B): Digital Strategy; Attachment 4-1-5(B): Workforce Planning Strategy; Attachment 4-1-5(D): Health, Safety and Environment Compliance and Sustainability

With respect to other 2021-2025 productivity and continuous improvement initiatives identified in Exhibit 1-1-13 that are not included in Table A above, Hydro Ottawa offers the following initiative-specific information:

<sup>1</sup> The Occupational Health, Safety, and Environmental ("OHSE") software referenced in Exhibit 1-1-13: Productivity and Continuous Improvement Initiatives is a key activity contemplated under this initiative. The business case is appended to this interrogatory response as Attachment CCC-29(A): OHSE Software Application Business Case.

- 1     • Crew Wrench Time Analysis and Productivity Improvements: “Wrench time” is the  
2       percentage of total time worked during which a power line or power cable technician has  
3       tools-in-hand and is directly working on the job.

4  
5       Wrench time does not include non-productive time – namely, incidental time and waste.  
6       Incidental time is the percentage of total time spent performing tasks that may be  
7       required to get the job done, but it does not directly result in equipment progressing back  
8       to a repaired state or availability (e.g. performing safety checks, obtaining tools and  
9       parts, and cleaning-up the worksite). As for waste time, examples include excessive  
10      travel between locations, waiting for parts or tools, waiting for other processes to happen  
11      first (e.g. system isolation), and excessive motion at work-site (e.g. to retrieve  
12      parts/tools). An efficient workforce will seek to minimize incidental time and eliminate  
13      waste time.

14  
15      The wrench time analysis planned by Hydro Ottawa contemplates compiling, presenting,  
16      and analyzing data from relevant business systems and solutions employed by the utility  
17      (e.g. Geotab fleet management and vehicle tracking software, and Tableau business  
18      intelligence and analytics software). The results of the analysis will be presented in order  
19      to determine what incremental increase can be achieved. The analysis and the decisions  
20      based upon the analysis are expected to lead to improvements in efficiency, productivity,  
21      and customer service, and to reduce costs.

22  
23      Outlined below are the calculations underlying the estimated 4% wrench time  
24      improvement and corresponding \$520,000 in savings that are presented as a sample  
25      target in Exhibit 1-1-13: Productivity and Continuous Improvement Initiatives:

- 26  
27           → Standard workday for 1 technician = 8 hours  
28           → 8 hours - 1 hour (lunch & breaks) = 7 hours  
29           → (7 hours) x (60 minutes) = 420 minutes  
30           → (420 minutes) x (0.04) = 16.8 minutes  
31           → (\$77.00 average hourly wage) ÷ (60 minutes) = \$1.28/minute

1 → (\$1.28) x (16.8 minutes) = \$21.56

2 → (220 workdays/year<sup>2</sup>) x (110 technicians) x (\$21.56/technician) = **\$521,752**

3

4 • Vegetation Management Savings: Hydro Ottawa signed a contract with Asplundh  
5 Canada ULC in late 2018 for vegetation management services beginning in January  
6 2019. This three-year contract, with two additional one-year options, resulted in annual  
7 cycle trim savings of approximately \$300k.

8

9 • Cable Locates Savings: A key input into Hydro Ottawa's evaluation of the potential  
10 savings associated with process refinements for cable locates was a presentation  
11 delivered by a leading third-party service provider, from whom the utility had requested  
12 preliminary analysis and insights. Hydro Ottawa requested but was not able to obtain  
13 authorization from this third-party to include a copy of the presentation in the response to  
14 this interrogatory. Accordingly, at this time, all pertinent information regarding this  
15 planned productivity initiative is available in Exhibit 1-1-13: Productivity and Continuous  
16 Improvement Initiatives.

17

18 • Seasonal Construction Shifts: All pertinent information regarding this initiative is included  
19 in Exhibit 1-1-13: Productivity and Continuous Improvement Initiatives.

20

21 As a final point, Hydro Ottawa wishes to emphasize that it has applied a custom OM&A  
22 productivity escalator to its planned 2021 OM&A levels, as part of its Custom IR formula for  
23 2021-2025 rates. The custom escalator applied was 2.51%. This translates into a reduction in  
24 OM&A spending of \$13.1M over the five-year term. (Please see UPDATED Exhibit 1-1-10:  
25 Alignment with the Renewed Regulatory Framework and UPDATED Exhibit 4-1-1: Operations,  
26 Maintenance and Administration Summary for details). Achievement of these savings will  
27 necessitate successful execution of the productivity and continuous improvement initiatives  
28 identified for 2021-2025 in Exhibit 1-1-13.

---

<sup>2</sup> This figure excludes vacation, training, etc.

- 1 Additional information on the savings associated with Hydro Ottawa's productivity and
- 2 continuous improvement initiatives can be found in the response to interrogatory OEB-47.



# **BUSINESS CASE**

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## **OHSE Software Application**

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October 2018

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## BUSINESS CASE

**ORIGINATING DIVISION:**

Human Resources

**GROUP:**

Health, Safety and Environment

**BUSINESS CASE AUTHOR:**

Bruce Lang

**PHONE No. /Ext.**

7484

**BUSINESS CASE TITLE:** OHSE Software Application

**PROJECT NUMBER** (If applicable): N/A

**Document Approval List**

Approved By	Signature	Date

**Document Distribution List**

Name of Receiver / Group	Date

**Latest revision date:**



## BUSINESS CASE

### Human Resources OHSE Software Application

#### Executive Summary

This business case has been prepared for the selection and implementation of an integrated occupational health, safety and environment software application to enhance effectiveness and efficiency in a variety of key areas including regulatory compliance, OHSE management system maintenance and enhancement, process efficiency, data quality and reporting, diagnostic and predictive analytics, incident reporting and investigation, identification and correction of root causes of failure/incidents and assigning and tracking of corrective/preventive actions to completion.

Analytics bring a new dimension to safety management, empowering decision makers at all levels to better understand the underlying drivers of performance, proactively manage risks, and realize maximum benefit from safety investments. Influencing behaviours, and building and maintaining a culture of zero harm, begins with optimizing insights from your data.

Hydro Ottawa sees safety as a business differentiator and a key factor in building a culture of excellence. Strong safety performance helps the organization attract and retain top talent and, in contrast, a single safety incident can significantly damage organizational reputation and erode shareholder confidence. For these reasons, and others, leveraging analytics to improve safety performance is a worthy investment for Hydro Ottawa.

#### Business Need

One of the biggest challenges to effective data management is the use of various disconnected systems and tools. At Hydro Ottawa, health, safety and environment data is not currently managed within a single repository but is instead spread across various systems, tools, spreadsheets and databases. Using these independent systems and tools to provide collective reports to management is a manual, inefficient process which can produce data that is inconsistent and fragmented. As a result, trends can be difficult to identify. If not corrected, these disparate OHSE systems will continue to be labour intensive to manage and negatively impact data quality and productivity.

By moving to an integrated, comprehensive health and safety software application, Hydro Ottawa will be better able to:

- **Promote efficient practices** through streamlining/standardizing work practices, improving data consistency, analytics and reporting, and integrating and sharing data between functions.



## BUSINESS CASE

- **Meet regulatory requirements** by streamlining regulatory reporting/recordkeeping, tracking regulatory compliance, and adhering to international data privacy requirements.
- **Ensure a safe and healthy workplace** by identifying health and injury/illness trends, supporting effective absence management, tracking key health, safety and environment indicators and consolidating medical surveillance activities.
- **Reduce OHSE infrastructure costs** by minimizing draw on IT resources, reducing reliance on multiple hardware and software systems, and freeing up physical space occupied by paper files.

Collectively, this will help Hydro Ottawa gain better insight into OHSE trends, and make more informed business decisions that align OHSE business practices with current management needs.

### Strategic Alignment

Hydro Ottawa's Strategic Direction for 2016-2020 outlines four Key Areas of Focus including Customer Value, Financial Strength, Organizational Effectiveness and Corporate Citizenship. The focus area of Organizational Effectiveness includes continuing to enhance operational performance, including productivity and safety. A fundamental component of Hydro Ottawa's commitment to operating efficiently and effectively is the very high priority we place on protecting the health and safety of our employees and our community. To that end, we have established an integrated health, safety and environment management system that has achieved and maintained certification to the international standards of Occupational Health and Safety Assessment Series (OHSAS) 18001 and International Organization for Standardization (ISO) 14001 since 2007.

Selection and implementation of an OHSE Software Application directly supports the corporate strategic direction, as well as the 2018 and 2019 Chief Human Resources Officer (CHRO) Division priorities related to implementing enhanced processes and technology tools to increase efficiency and effectiveness of:

- safety accountability activities related to safety communications and meetings, workplace inspections, field site visits and tailboards,
- OHSE related records management, and
- incident/injury reporting, recording, investigation and corrective action assignment and tracking.

### Options or Solutions Analysis

The first stage of the options analysis considered maintaining the status quo ("doing nothing"), and that option was deemed unacceptable for the reasons outlined above in the *Business Need* section.



## BUSINESS CASE

The Solutions Analysis stage commenced with a review of the Verdantix Green Quadrant EHS Software reports for 2016 and 2017. These reports provide detailed fact-based comparisons of the 20 most prominent OHSE software vendors. Based on the proprietary Verdantix Green Quadrant methodology, the analysis is based on 2.5 hour live product demonstrations with pre-set scenarios, vendor responses to a 251-point questionnaire, interviews with 15 independent customers representing 10 industries who have bought, or are planning to buy, OHSE software, and a survey of 301 OHSE decision-makers.

The analysis found that 10 vendors currently lead the market in both momentum and software application capabilities, whilst the other vendors have strong capabilities in specific areas such as chemicals management, environmental management, safety and risk. Based on these reports, the decision was made to focus on the top three ranked software providers who had an established presence in the Canadian market (VelocityEHS, Intelex, and Cority).

### Financial and/or Non-Financial Benefits

In addition to the benefits identified in the Business need section above, implementation of an integrated OHSE Software Application will provide Hydro Ottawa with additional benefits in the areas of:

- **Centralization and Integration:** An integrated Occupational Health, Safety and Environment software application can provide integration with the organization's Human Resources system as well as between OHSE functional areas improving productivity. The integration of medical, safety, industrial hygiene and environmental records allows functional areas to "talk" to one another, share information and report findings collaboratively, eliminating redundancies.
- **Streamlining and Standardizing Work Processes:** An integrated Health, Safety and Environment software system is an effective tool to help organizations streamline and standardize their OHSE business processes across multiple sites and locations. This promotes data integrity and consistency in data analysis.
- **Easy and Efficient to Deploy:** An integrated system places less demand on IT resources. Without isolated, inefficient systems to support, IT staff can focus on other projects, and the hardware and software required to support disparate systems can be eliminated.
- **Robust Management of Data Security:** Organizations must comply with and adhere to very strict regulations on data privacy and security. A system with configurable and robust security options will allow you to control who has access to what information on an enterprise, site, role, or individual basis. A solution



## BUSINESS CASE

and/or vendor that is compliant with formal and recognized standards for information security offers additional assurance that your data will be protected.

### Risk Analysis

The primary risk event or condition that could negatively impact the execution of this project in 2019 is Hydro Ottawa's move to new facilities in Q2 with its attendant impacts on efficiency, schedule and resource availability. However, the risk of not doing the project this year is that budget may not be available in future years, and sustained use of existing disparate OHSE systems will continue to drain resources and negatively impact data quality and productivity.

### Recommendation

Based on the above Options and Solutions Analysis, the recommendation is to focus on the top three ranked software providers who have an established presence in the Canadian market (VelocityEHS, Intelex, and Cority); thoroughly evaluate their product capabilities, functionality, pricing and customer support before selecting, procuring and implementing the desired solution.

### Implementation Plan

Deliverable/Milestone	Accountable Person	Due Date
1. Prepare Business Case	Bruce Lang	2018 October 31
2. Review information on VelocityEHS, Intelex, and Cority software solutions in Verdantix Green Quadrant EHS Software reports for 2016 and 2017 to confirm suitability for further evaluation	Bruce Lang Richard Latulippe	2018 November 15
3. Prepare Hydro Ottawa OHSE software functional requirements and provide to vendors	Bruce Lang Richard Latulippe Michelle Pharand	2018 November 30
4. Schedule and coordinate product demonstrations with vendors and Hydro Ottawa stakeholders	Michelle Pharand	2018 December 15



## BUSINESS CASE

5. Schedule and coordinate interviews with current clients of each vendor to get feedback on their product and customer service experience to date	Michelle Pharand	2018 December 30
6. Using information acquired from Verdantix report, product demonstrations and client interviews make a vendor/product recommendation to the Chief Human Resources Officer	Bruce Lang Richard Latulippe Michelle Pharand	2019 January 31
7. Procure selected OHSE software application.	TBD	2019 Q1
8. Identify implementation project manager	Bruce Lang/Lyne Parent-Garvey	2019 Q2
9. Form project implementation team and establish project charter (including schedule, milestones, governance structure, resources, dependencies, constraints, decision points, etc.)	Project Manager	2019 Q2
10. Execute project	Project Manager	2019 Q3
11. Complete project and go live	Project Manager	2019 Q4

### Documentation

- OHSE Software Application Functional Requirements (attached).
- Verdantix Green Quadrant EHS Software reports for 2016 and 2017 (available from Director, Health, Safety and Environment).



## BUSINESS CASE

### Acceptance Sign-off:

#### Lead Division

**Prepared By:** Bruce Lang, Director, Health, Safety and Environment

**Date:** October 31, 2018

**Signature:** \_\_\_\_\_

**Approved By:** Lyne Parent-Garvey, Chief Human Resources Officer

**Date:** January 31, 2019

**Signature:** \_\_\_\_\_

#### Business Partner(s)

**Submitted To:** Michelle Pharand, Manager, Enterprise Solutions

**Date:** January 31, 2019

**Signature:** \_\_\_\_\_

**INTERROGATORY RESPONSE - CCC-30**

**CCC-30**

EXHIBIT REFERENCE:

**(Ex. 1-1-13, pp. 5-8)**

SUBJECT AREA: Productivity

Please describe, in detail, Hydro Ottawa's online billing policy.

**RESPONSE:**

Online billing is an electronic billing service that Hydro Ottawa offers through MyAccount, an online account portal for customers. Once enrolled, customers can manage their bills online and they will no longer receive a paper copy of their electricity bill in the mail.

Online billing only applies to electricity bills. More than one account can be registered for online billing.

To register for online billing, customers must have an online account (My Account). Registration can be completed online or by speaking with a Customer Service representative. Hydro Ottawa offers two different email notification options for online billing:

- The "Standard Notification" does not contain any account information – it simply informs customers through email that a bill is ready on MyAccount.
- The "Enhanced Notification" includes the account number, address, current balance, and due date in the email notification.

Notification options can be changed at any time by logging into MyAccount.

Online billing can be cancelled at any time by contacting a Customer Service representative by telephone or by completing a feedback form online.

**INTERROGATORY RESPONSE - CCC-31**

**CCC-31**

EXHIBIT REFERENCE:

**(Ex. 1-1-13, p. 51)**

SUBJECT AREA: Productivity

Hydro Ottawa intends to embark on a “service automation journey” utilizing a digital platform, Salesforce. What is the cost of this initiative, both OM&A and Capital? Please provide a dollar value for each of the productivity gains listed in the evidence related to this initiative.

**RESPONSE:**

Hydro Ottawa has produced a detailed overview of the Service Automation initiative which outlines the costs of the program and anticipated benefits. Please see Attachment 2-4-3(E): Material Investments, Section 3.1.3 Service Automation.

In the aforementioned attachment, OM&A and capital costs are presented on page 474. Details related to productivity gains are presented on page 465. The roadmap and schedule can be viewed in Table 1.8 - Program Timing on page 468.

This multi-year strategy to improve service automation is an iterative process with interdependencies. Enhancement efficiencies will be realized at various points throughout Hydro Ottawa's rate term.

**INTERROGATORY RESPONSE - CCC-32**

**CCC-32**

EXHIBIT REFERENCE:

**(Ex. 1-2-1, Attachment B, p. 15)**

SUBJECT AREA: CDM

The evidence states, Hydro Ottawa intends to remain a trusted advisor to its customers in the emerging smart energy future through its Conservation and Demand Management Team. This future includes a growing array of electricity generation alternatives, electricity storage, demand management and Smart Grid technologies. Are these activities funded through rates or an affiliate? If they are funded through rates please provide a detailed budget for each of these activities for each year in the rate plan period. Is CDM funding in within the LDC currently allowed by the OEB?

---

**RESPONSE:**

Hydro Ottawa is proposing that the 2021-2025 activities and required staffing associated with its CDM team be funded through rates, so that the utility can remain a trusted advisor in its community, as outlined in Exhibit 4-1-6: Conservation and Demand Management.

Hydro Ottawa is proposing to continue to support customers' CDM activities starting in mid-2021, with funding for staff recovered through rates, which would be \$0.2M in 2021, seeing as that year's needs are partial given the scheduled expiration of the current Interim Framework, and \$0.5M from 2022-2025. This funding would be allocated to compensation to provide customer support and education on energy efficiency initiatives, marketing, and miscellaneous costs. Details are outlined in section 3.3 of UPDATED Exhibit 4-1-4: Operations, Maintenance and Administration Cost Drivers and Program Variance Analysis.

- 1 These activities are consistent with and support the activities outlined in the OEB's
- 2 Conservation and Demand Management Requirement Guidelines for Electricity Distributors.<sup>1</sup>

---

<sup>3</sup> <sup>1</sup> Ontario Energy Board, *Conservation and Demand Management Requirement Guidelines for Electricity Distributors*,  
<sup>4</sup> EB-2014-0278 (December 19, 2014; updated August 11, 2016).

**INTERROGATORY RESPONSE - CCC-33**

**CCC-33**

EXHIBIT REFERENCE:

**(Ex. 1-2-2)**

SUBJECT AREA: Customer Engagement

What is the total cost of Hydro Ottawa's engagement of Innovative Research Group? Please provide the Terms of Reference for this work. Was this work subject to an RFP process? If not, why was it not?

**RESPONSE:**

Hydro Ottawa's actual costs applicable to Innovative Research Group Inc. ("Innovative") for Phase I and II customer engagement activities totalled \$217,000.

To gain insight into the scope of work for this activity, please refer to Attachment CCC-33(A): Statement of Work - Innovative Research Group.

Hydro Ottawa's engagement of Innovative was not subject to an RFP process. Innovative is well versed in OEB customer engagement requirements and has previously been retained by a number of other Ontario electricity distributors, including Hydro Ottawa, for rate application customer engagement survey services. The decision to use Innovative allowed for a consistent, methodological approach to the survey.

At the request of Hydro Ottawa, Innovative submitted a proposal on October 1, 2018. On December 10, 2018, a services agreement with Innovative was executed.

(1) Schedule A - Statement of Work

## 1. Introduction

The Ontario Energy Board (OEB) requires Hydro Ottawa's rate application to provide an overview of customer needs and preferences. Hydro Ottawa therefore requires services of the Contractor to design and facilitate a two-phase stakeholder engagement process to support Hydro Ottawa's 2021-2025 Custom Incentive Rate-setting (Custom IR) application.

In the Custom IR method, rates are set based on a five year forecast of a distributor's revenue requirement and sales volumes. A Custom IR method is appropriate for distributors with significantly large multi-year or highly variable investment commitments and requires detailed investment plans over the five-year period (e.g., Distribution System Plan). Distributors must also demonstrate how it will achieve business efficiencies and deliver services that customers' value, while maintaining reasonable rates.

The Contractor shall follow the OEB framework that must shape any engagement activity. This evaluation framework includes:

1. The forms of customer engagement used, their quality and effectiveness
2. The quality of the utility's analysis of customer input (i.e. vulnerable customers)
3. Whether and how customer input has informed the utility's planning
4. Whether and how the utility's plans deliver benefits which address customer needs and preferences

## 2. Contractor Responsibilities

The work performed by the Contractor will include the following business consulting services documented in Phase I and II as below:

### Phase I

#### a. Step 1 - Exploratory Customer Focus Groups

The Contractor will build off the results from Hydro Ottawa's 2016-2020 Customer Engagement effort by conducting exploratory qualitative research amongst low-volume customers in order to determine whether customer needs and priorities have evolved over the past four years and, if so, understand the gap in existing and expected services.

This phase of the engagement will focus on understanding the gap between the services and experience customers want and the services and experience customers are receiving.

#### b. Step 2 - Parallel Baseline Surveys

The next phase of the customer engagement would feature two concurrent surveys; one using a telephone and the other an online methodology. (See details under Section 4.)

Both surveys would only include a core set of questions, including key outcomes identified in the exploratory research and demographics to better understand the composition of Hydro Ottawa low-volume customers.

**c. Step 3 - Customer Analysis and Modeling**

The Contractor shall determine whether Hydro Ottawa customers who respond to the online survey are different than those who respond via telephone, including in both demographics and key utility outcomes.

The Contractor shall develop a series of weights to be used both in Phase II of the consultation, and when conducting future online studies.

**d. Step 4 - Summary Planning "Placemat"**

Using results from Parallel Baseline Surveys (e.g., the concurrent telephone and online surveys, noted in 2b. Step 2), the Contractor shall develop a planning "placemat" to be used in the development and refinement of the Hydro Ottawa's business strategies and Distribution System Plan priorities, to ensure they reflect with customer needs and preferences.

**Phase II**

**a. Step 5 - Consultation Workbook Narrative Development**

The Contractor shall work with Hydro Ottawa staff, and will develop a cohesive workbook narrative to be used throughout the remaining steps of the engagement.

**b. Step 6 - Workbook Narrative "Testing" Focus Groups**

The Contractor shall conduct focus groups with low-volume customers to determine whether the workbook narrative is clear and provides the information needed.

**c. Step 7 - Low-Volume Online Workbook**

The Contractor shall invite all low-volume customers to participate in a detailed online workbook which, in addition to the core questions from Phase I, sets out to understand customer needs and preferences as they relate to Hydro Ottawa's proposed investment and spending plan. Results to be weighted based on results from Phase I to ensure a representative sample of low-volume customers.

**d. Step 8 & 9 - Mid-Sized and Large Business Online Surveys**

The Contractor shall invite all remaining business customers and key accounts to provide detailed feedback on Hydro Ottawa's proposed plan – including investment trade-offs and other core elements of the utility's business plan.

**e. Step 10 - Final Customer Engagement Report**

The Contractor shall draft an independent, evidence-based customer engagement report which summarizes the various phases of the consultation process and provides insights to assist in business and distribution system planning.

### 3. Summary of Proposed Approach and Timelines

	Consultation Activity	Estimated Timeline
<b>Phase I</b>		
Step 1	Exploratory Customer Focus Groups	December, 2018
Step 2	Parallel Baseline Surveys	TBD
Step 3	Customer Analysis and Modeling	TBD
Step 4	Summary Planning "Placemat"	TBD
<b>Phase II</b>		
Step 5	Consultation Workbook Narrative Development	TBD
Step 6	Workbook Narrative "Testing" Focus Groups	TBD
Step 7	Residential & GS<50kW Online Workbook	
Steps 8 & 9	Mid-sized and Large Business Online Surveys	TBD
Step 10	Final Customer Engagement Report	June, 2019

### 4. Design Consideration

To gather feedback and insights from low-volume customers, the Contractor will run two parallel online and telephone baseline surveys, followed by a lengthy, detailed online "workbook" survey.

- a. The two parallel online and telephone baseline surveys would serve as a weighting study and include only a set of core questions (including key outcomes, as well as demographics). These surveys would provide the baseline results to be used for weighting in subsequent online surveys.
- b. The online survey shall include the full set of questions (including the core questions asked in the baseline surveys). It would allow gathering richer feedback, as the Contractor can include visuals in the presentation of information.
- c. To make sure that the results from the online survey are representative of the broader customer base, the Contractor shall use the baseline surveys to weight the online results.

## Appendix 1 to Schedule A - Privacy Rules

1. **Continuation of Privacy Laws.** The Contractor shall immediately advise Hydro Ottawa if it believes that any practice or procedure in which it is engaging contravenes applicable Privacy Laws, or if it receives or learns of any complaint or allegation to that effect, but any decision as to changing any such practice shall be made by Hydro Ottawa in its sole discretion. If Hydro Ottawa determines, in its sole discretion, that a practice or procedure would result in violation of applicable Privacy Laws, Hydro Ottawa may amend the Work to vary or eliminate such practice or procedure.
2. **No Disclosure of Personal Information.** Except as expressly permitted herein, the Contractor shall not, without the prior written consent of Hydro Ottawa:
  - disclose any Personal Information to any affiliated or unaffiliated third party, or
  - transmit or provide access Personal Information to any of the Contractor's personnel, or to any facility, outside Canada.
3. **Complaints.** Any privacy related requests or complaints received by the Contractor in relation to the Work shall be immediately referred to Hydro Ottawa. If the Contractor receives any inquiry or complaint relating to Personal Information that has been Handled while performing the Work, the Contractor shall immediately notify Hydro Ottawa thereof in such form and manner, and with such particulars, as Hydro Ottawa may from time to time specify. If Hydro Ottawa notifies the Contractor that it requires assistance in investigating or responding to the inquiry or complaint, the Contractor shall fully cooperate with Hydro Ottawa by furnishing it with complete information concerning its Handling of the Personal Information, including responding, if requested to do so, to any inquiry by a regulatory authority under any applicable Privacy Laws and/or to any complaint. If any inquiry or complaint gives rise to regulatory or court proceedings, the Contractor shall co-operate in the conduct of such proceedings and shall attend hearings and assist in securing and giving evidence and obtaining the attendance of witnesses.
4. **Audit of the Contractor Practices.** Hydro Ottawa may on reasonable notice, audit the Contractor's compliance with these Privacy Rules, PIPEDA and any other Privacy Laws. Hydro Ottawa shall have no duty to conduct such an audit and shall not incur any liability or obligation by reason of doing or not doing so.
5. **Security Measures.** All Personal Information shall be stored in a secure physical and electronic environment meeting or exceeding then-current Industry Standards and satisfactory to Hydro Ottawa in its sole discretion. Promptly upon notice from Hydro Ottawa, the Contractor will undertake, at its sole cost and expense, to remedy any security deficiency or improvement identified or requested by Hydro Ottawa.
6. **Notification of Unauthorized Activities.** The Contractor shall promptly notify Hydro Ottawa in writing upon becoming aware of the loss, theft, or unauthorized Handling of any Personal Information.
7. **Limitations of Access.** The Contractor shall:
  - ensure that only such of its Personnel as have a need to know Personal Information for the performance of the Work have access to Personal Information;
  - not disclose any Personal Information to any third parties other than suppliers approved by Hydro Ottawa in writing who have been retained as an agent of the Contractor to perform the Work, who have signed a written Confidentiality Agreement with substantially similar obligations of confidentiality as those set out herein and which includes provisions prohibiting such supplier from Handling Personal Information for any purpose other than for the performance of the Work and prohibiting the disclosure by such supplier of any

Personal Information to any third party;

ensure that each person who has such access (a "User") is familiar with the privacy obligations hereunder;

take reasonable steps, through training, confidentiality agreements and the application of appropriate employment sanctions, to ensure compliance by all Users with the privacy obligations hereunder; and

ensure that upon termination of employment or affiliation with the Contractor, each User's ability to access Personal Information is terminated, any and all Personal Information in the possession of any such User is returned or, at Hydro Ottawa's option, destroyed as directed by Hydro Ottawa (provided Hydro Ottawa is provided with written confirmation from an officer of the Contractor attesting to such destruction), and such User is reminded of the continuing obligation of confidentiality with respect to all Personal Information.

- 8. Termination by Hydro Ottawa.** In the event that the Contractor is not in compliance with Privacy Laws, as determined by Hydro Ottawa, Hydro Ottawa shall be able to terminate the Work immediately and without further notice to the Contractor, without prejudice to any other rights or remedies Hydro Ottawa is entitled to at law or in equity.
- 9. Return of Personal Information.** In the event of any termination of the Work, the Contractor shall forthwith return to Hydro Ottawa, as directed by Hydro Ottawa, all Personal Information held by the Contractor and any of its Personnel pursuant to the Work or, at Hydro Ottawa's option, destroy such Personal Information as directed by Hydro Ottawa and provide Hydro Ottawa with written confirmation from an officer of the Contractor attesting to such destruction.
- 10. Survival.** The obligations in these Privacy Rules shall survive the termination or expiration of the Work to the extent required by Privacy Laws.

**INTERROGATORY RESPONSE - CCC-34**

**CCC-34**

EXHIBIT REFERENCE:

**(Ex. 1-3-1)**

SUBJECT AREA: Financial Performance

Please provide the Audited Financial Statements for 2019.

**RESPONSE:**

See Attachment 1-3-1(C): 2019 Audited Financial Statements, submitted on May 5, 2020, for the 2019 Audited Financial Statements.

## INTERROGATORY RESPONSE - CCC-35

### CCC-35

EXHIBIT REFERENCE:

(Ex. 2-1-1 Updated)

SUBJECT AREA: OM&A

Please provide Hydro Ottawa's depreciation expense, forecast compared to actuals, for each of the years 2016 to 2020.

### RESPONSE:

Table A outlines Hydro Ottawa's depreciation expense, forecast compared to actuals, for each of the years 2016-2020.

**Table A – 2016-2020 Actual Depreciation and OEB-Approved Depreciation (\$'000s)**

	2016 Historical Year	2017 Historical Year	2018 Historical Year	2019 Historical Year	2020 Bridge Year
Actual depreciation, net of contributions and grants <sup>1</sup>	\$40,881	\$41,663	\$46,576	\$48,900	\$50,704
Forecast depreciation, net of contributions and grants <sup>2</sup>	\$40,379	\$43,558	\$46,388	\$48,158	\$49,384
<b>VARIANCE</b>	<b>\$502</b>	<b>\$(1,895)</b>	<b>\$188</b>	<b>\$742</b>	<b>\$1,320</b>

<sup>1</sup> These figures are consistent with UPDATED Exhibit 4-3-1: Depreciation, Amortization Disposal.

<sup>2</sup> These figures are consistent with the Approved Settlement Agreement governing Hydro Ottawa's 2016-2020 rate term.

## INTERROGATORY RESPONSE - CCC-36

### CCC-36

#### EXHIBIT REFERENCE:

**Ex. 2-4-3, p. 1 and p. 266**

SUBJECT AREA: Distribution System Plan

p. 1 Hydro Ottawa indicates it is on track to successfully complete its plan for 2016-2020, with adjustments for typical changes and evolving circumstances.

p. 266 Through the course of the 2016-2020 period, Hydro Ottawa has reprioritized projects and adjusted program pacing as necessary.

- a) Please provide the original number of projects forecast to be completed for the years 2016-2020 compared to the actual number of projects completed.
- b) Please provide the percentage of original projects completed.
- c) Please provide the actual dollar value of the original projects completed compared to budget.

---

### RESPONSE:

- a) Hydro Ottawa's 2016-2020 expenditures were prepared at a program level and only included project-level details for certain programs in the Material Investment Plan ("MIP").<sup>1</sup> The number of projects included in the MIP for the 2016-2020 period by program is listed in Table A below.

---

<sup>1</sup> See Exhibit B, Tab 1, Schedule 2 in Hydro Ottawa's *2016-2020 Custom Incentive Rate-Setting Electricity Distribution Rate Application* (EB-2015-0004).

**Table A – Projects in 2016-2020 Material Investment Plan**

Investment Category	Budget Program	2016-2020 Number of Projects Planned	2016-2020 Number of Projects Completed	% Completed
System Renewal	Stations Transformer Renewal	4	4	100%
System Renewal	Stations Switchgear Renewal	2	2	100%
System Renewal	Pole Renewal	6	5	83%
System Renewal	OH Transformer Renewal	2	2	100%
System Renewal	OH Switch/Recloser Renewal	2	2	100%
System Renewal	Civil Renewal	2	1	50%
System Renewal	Cable Replacement	4	3	75%
System Renewal	UG Switchgear Renewal	7	6	86%
System Renewal	UG Transformer Renewal	1	1	100%
System Service	Stations Capacity Upgrades	5	3	60%
System Service	Line Extensions	4	5	125%
System Service	System Voltage Conversion	12	9	75%
System Service	SCADA Upgrades	1	1	100%
System Service	Communications Infrastructure	1	1	100%
System Service	Remote Disconnected Smart Meter	1	1	100%
General Plant	Facilities Implementation Plan	1	1	100%
General Plant	Customer Service	3	1	33%
General Plant	ERP System	1	1	100%
General Plant	Fleet Replacement	1	1	100%
General Plant	IT New Initiatives	1	0	0%

b) Please see part (a) above.

c) Please see Attachment SEC-36(A): 2016-2020 Budget vs. Actuals Project Level for the cost comparison between the original budget and the actual cost. Note that the estimates for the projects which were included in the 2016-2020 MIP were preliminary (Level A), meaning that they carry a potential variation of +100%/-50%.

**INTERROGATORY RESPONSE - CCC-37**

**CCC-37**

EXHIBIT REFERENCE:

**Ex. 2-4-3, p. 29**

SUBJECT AREA: Distribution System Plan

Large segments of the system were constructed in the 1960s, 1970s, and 1980s, with a typical expected service life for these assets in the order of 50 years. Consequently, a considerable proportion of the system has exceeded or is approaching its anticipated end of life. These aging assets pose an increasing failure potential, and without corrective actions, will impact the utility's ability to maintain system reliability and minimize unplanned renewal cost in the future.

a) Please define typical expected service life.

b) Please define anticipated end of life.

c) Please define useful life.

d) Please explain how Hydro Ottawa applies these concepts to determine spending forecasts in the current application.

---

**RESPONSE:**

a) "Typical expected service life" refers to the number of years a specific type of asset is expected to perform its function reliably before posing an increased risk of failure.

b) "Anticipated end of life" is interchangeable with "typical expected service life".

- 1 c) The term “useful life” refers to the accounting useful life over which the asset is  
2 depreciated.  
3
- 4 d) Hydro Ottawa uses these terms to illustrate the increased risk of failure posed by an  
5 ageing demographic. Spending forecasts in this Application are determined using each  
6 asset type’s associated probability of failure curve with current demographics to forecast  
7 future failure rates. Replacement scenarios are built to find optimized investment levels.

## INTERROGATORY RESPONSE - CCC-38

### CCC-38

#### EXHIBIT REFERENCE:

Ex. 2-4-3, p. 54, 56, 58, Tables 4.4, 4.5 and 4.6

SUBJECT AREA: Distribution System Plan

Please update Tables 4.4, 4.5 and 4.6 to include 2019 data.

#### RESPONSE:

See Table A below, which is the equivalent of Table 4.4 in Exhibit 2-4-3: Distribution System Plan, updated to include 2019 data.

**Table A – SAIFI Reliability Performance (2014-2019)**

Metric		2014	2015	2016	2017	2018	2019
SAIFI	All Interruptions	1.08	1.42	0.95	1.03	2.03	1.08
	Excluding LoS	0.86	0.75	0.78	0.83	1.19	0.83
	Excluding LoS & MED	0.73	0.71	0.74	0.73	0.78	0.75
	5-Year Average	1.02	0.99	0.98	0.90	0.83	0.74
	Target Met	Yes	Yes	Yes	Yes	Yes	No

See Table B below, which is the equivalent of Table 4.5 in Exhibit 2-4-3: Distribution System Plan, updated to include 2019 data.

1 **Table B – SAIDI Reliability Performance (2014-2019)**

Metric		2014	2015	2016	2017	2018	2019
<b>SAIDI</b>	All Interruptions	1.66	1.62	1.21	1.58	22.83	1.3
	Excluding LoS	1.59	1.59	1.13	1.51	3.54	0.92
	Excluding LoS & MED	1.08	1.08	1.00	1.11	0.85	0.77
	5-Year Average	1.04	1.04	1.15	1.12	1.13	1.02
	Target Met	No	Yes	Yes	Yes	Yes	Yes

2

3 See Table C below, which is the equivalent of Table 4.6 in Exhibit 2-4-3: Distribution System  
4 Plan, updated to include 2019 data.

5

6 **Table C – CAIDI Reliability Performance (2014-2019)**

Metric		2014	2015	2016	2017	2018	2019
<b>CAIDI</b>	Excluding LoS & MED	1.48	1.52	1.35	1.52	1.09	1.02
	5-Year Average	1.02	1.10	1.17	1.24	1.36	1.38

7

**INTERROGATORY RESPONSE - CCC-39**

**CCC-39**

EXHIBIT REFERENCE:

**Ex. 2-4-3, p. 66-67**

SUBJECT AREA: Distribution System Plan

Hydro Ottawa plans to track asset performance using a Defective Equipment Contribution to SAIFI metric. Each asset class contributes to the overall SAIFI reliability metric. The metric allows Hydro Ottawa to identify assets that cause multiple outages and better focus its attention on issues directly affecting customers. Table 4.11 shows how each asset class (overhead, station and underground) contributes to the overall SAIFI reliability metric.

a) Please update Table 4.11 to include 2019 data.

b) Please explain how the Target column was derived and show any calculations.

c) When was this metric first implemented?

d) Please identify the top five asset types that cause the most multiple outages in order of impact.

e) Please provide the underlying data in excel by asset type (i.e. overhead switch, underground switchgear, underground cable (PILC), underground cable (polymer) etc.) that makes up the data in Table 4.11 including 2019.

---

**RESPONSE:**

a) Please see the response to part (d) of interrogatory SEC-34.

- 1     b) The target column identifies the 2019 target, which is set by the average of the previous  
2         five years (2014-2018).  
3
- 4     c) The metric was implemented as part of Hydro Ottawa's previous rebasing application.<sup>1</sup>  
5         However, the SAIFI per 100 customers was provided per asset and not per group of  
6         assets.  
7
- 8     d) The top five asset types that cause the most multiple outages in order of impact are:  
9         Underground Cable, Underground Transformer, Overhead Switchgear, Overhead  
10         Transformer, and Overhead Conductor.  
11
- 12    e) Please see Attachment CCC-39(A): Defective Equipment SAIFI per 100 Customers by  
13         Asset Type for the underlying data in excel by asset type that makes up the data in Table  
14         4.11 of Exhibit 2-4-3: Distribution System Plan, including 2019.

---

15 <sup>1</sup> Hydro Ottawa Limited, *2016-2020 Custom Incentive Rate-Setting Distribution Rate Application*, EB-2015-0004 (April  
16 29, 2015).

**INTERROGATORY RESPONSE - CCC-40**

**CCC-40**

EXHIBIT REFERENCE:

**Ex. 2-4-3, p. 79, Table 4.23**

SUBJECT AREA: Distribution System Plan

Table 4.23 captures the historical outage information by primary cause.

a) Please update Table 4.23 to include 2019 data.

b) Does the data in Table 4.23 include Major Event Day (MED) data. If yes, please extract and include MED data as a separate Primary Cause.

c) Please provide an excel version of Table 4.23 updated to reflect (a) and (b).

d) Please provide a further breakdown of the data under Defective Equipment, by equipment cause, in two ways: including and excluding MED data and provide the excel version of the data.

e) Please explain how the number of customer interruptions or customer-hours impact Hydro Ottawa's classification of the severity rating of the outage?

---

**RESPONSE:**

a) Please see the response provided to part (a) in interrogatory SEC-34.

b) Yes, Table 4.23 includes MED data. Please refer to Attachment CCC-40(A): 2017-2019 Reliability Performance by Cause Code and Defective Equipment.

- 1 c) Please see Attachment CCC-40(A): 2017-2019 Reliability Performance by Cause Code  
2 and Defective Equipment. OEB implemented MED metrics in 2016, therefore the data  
3 available begins in 2017.  
4
- 5 d) Please see Attachment CCC-40(A): 2017-2019 Reliability Performance by Cause Code  
6 and Defective Equipment. OEB implemented MED metrics in 2016, therefore the data  
7 available begins in 2017.  
8
- 9 e) Hydro Ottawa does not have an outage severity rating system.

**INTERROGATORY RESPONSE - CCC-41**

**CCC-41**

EXHIBIT REFERENCE:

**Ex. 2-4-3**

SUBJECT AREA: Distribution System Plan

Please provide the total number of outages by year for each of the years 2016 to 2019.

**RESPONSE:**

See Table A below for the total number of outages by year for the years 2016-2019.

**Table A – 2016-2019 Number of Outages**

	2016	2017	2018	2019
Total Number of Outages	1,619	1,780	1,736	1,377

**INTERROGATORY RESPONSE - CCC-42**

**CCC-42**

EXHIBIT REFERENCE:

**Ex. 2-4-3, p. 91**

SUBJECT AREA: Distribution System Plan

Hydro Ottawa indicates Defective Equipment Contribution trends are reviewed on an annual basis to establish a target for the frequency and the quantity of assets to be replaced.

a) Please provide the targets and how they were derived for the years 2016 to 2020.

b) Please provide the quantity (total number of assets replaced) forecast vs. actual for each of the years 2016 to 2019.

c) Please provide the percentage of total assets replaced each of the years 2016 to 2019 and show the calculation

---

**RESPONSE:**

a) The targets and their derivation are outlined for each asset class in their respective Material Investment Plans found in Attachment 2-4-3(E): Material Investments, starting on page 1.

b) Please see Table A below for the forecasted total number of assets to be replaced versus the actual number of assets replaced for the years 2016-2019.

**Table A – 2016-2019 Forecasted vs. Actual Asset Replacements**

Target Asset Replacements				Actual Asset Replacements			
2016	2017	2018	2019	2016	2017	2018	2019
662	346	397	362	801	670	483	434

c) Please see Table B for the percentage of total assets replaced. Note that Hydro Ottawa does not have a year-over-year difference in total number of assets considered. A constant number was therefore assumed for the previous years.

**Table B – Percentage of Total Assets Replaced**

	2016	2017	2018	2019
Number of Assets Replaced	801	670	483	434
Total Number of Assets	88,470	88,470	88,470	88,470
Percent of Total	0.90%	0.76%	0.55%	0.49%

**INTERROGATORY RESPONSE - CCC-43**

**CCC-43**

EXHIBIT REFERENCE:

**Ex. 2-4-3, p. 129**

SUBJECT AREA: Distribution System Plan

Projects classified under the Pole Renewal and Underground Cable Renewal programs are optimized independently from all other projects. This is done to meet the replacement levels recommended by the Asset Management Plan for each asset type.

a) Please provide more details as to why the Pole Renewal and Underground Cable Renewal programs are optimized independently from all other projects.

b) Has Hydro Ottawa done a comparison with a scenario where Pole Renewal and Underground Cable Renewal programs are optimized with all other projects? If yes, please provide the results.

---

**RESPONSE:**

a) Hydro Ottawa conducts both long-term and short-term evaluations when determining investment level requirements.

Currently, long-term investment levels are determined through the Asset Management Plans and are based on projected asset failure rates with levelized replacements over time. In order to maintain reliability, Hydro Ottawa needs to maintain the recommended replacement levels of poles (400/year) and cables (26km/year) as per the Asset Management Plans (see Attachment 2-4-3(E): Material Investments, sections 1.2.1 and 1.3.3).

1 For in-year (short-term) planning, projects under the Pole Renewal and Underground  
2 Cable Renewal programs are scored by identifying their risk and/or benefit, as described  
3 in section 5.2.2 Project Evaluation of Exhibit 2-4-3: Distribution System Plan.

4  
5 The evaluation Value Model consists of 11 Value Measures, with each Value Measure  
6 normalized to the same scale. This means that within the Value Function, each Value  
7 Measure (except Investment Cost) is weighted the same value as +1. Investment Cost is  
8 a Negative contributor to the Value Measures, and is therefore weighted with a value of  
9 -1. The projects under the Pole Renewal and Underground Cable Renewal programs  
10 typically require a large investment and most of their value is derived from the  
11 'Reliability' Value Measure. This is highly influenced by the number of customers  
12 impacted, which varies significantly depending on the system configuration. For  
13 example, pole renewal projects, projects on single-phase versus multiple-feeder  
14 overhead lines, and different voltage classes (4kV to 44kV sub-transmission) will lead to  
15 large variations in value/cost ratios, with many projects having very low or negative  
16 value. As a result, in order to ensure the long-term replacement rates are achieved,  
17 projects under these programs are optimized within their own program.

18  
19 b) Hydro Ottawa has not done a comparison in which the Pole Renewal and Underground  
20 Cable Renewal programs are optimized with all other projects. Projects with negative  
21 values would not fall into the optimized list due to many other projects having a positive  
22 value per dollar.

## INTERROGATORY RESPONSE - CCC-44

**CCC-44**

EXHIBIT REFERENCE:

**Ex. 2-4-3, p. 129**

SUBJECT AREA: Distribution System Plan

Please complete the following Table.

	# Projects	Budget \$	Date Completed	Constraints Applied
Preliminary Project List				
Detailed Project List				
Approved Project List				

### RESPONSE:

As this process is executed on an annual basis and historical data is not readily available, the data requested has been provided for the 2019 fiscal year only. Please see Table A below and see the response to interrogatory SEC-42 for more details.

**Table A – Project List Versions**

2019 Budget	# of Projects	Budget (\$'000,000s)	Date Completed	Constraints Applied
Preliminary (Level 'A')	60	\$68.39	November 11, 2017	Financial (C55)
Detailed (Level 'D')	60	\$66.39	June 21, 2018	Financial (C55)
Board Approved	60	\$66.33	July 26, 2018	Financial (C55) & Resource (Department Review)

**INTERROGATORY RESPONSE - CCC-45**

**CCC-45**

**EXHIBIT REFERENCE:**

**Ex. 2-4-3, p. 136**

**SUBJECT AREA: Distribution System Plan**

Hydro Ottawa indicates 19% of all assets have reached their expected service life and now pose a higher risk of failure. An additional 12% of assets are within 10 years of reaching their expected service life.

a) Please confirm 19% of all assets is based on the quantity of assets. If not, please explain.

b) Please confirm the total number of assets used in the analysis.

c) Please provide the percentage of all assets that reached their expected service life and the percentage of assets within 10 years of reaching their expected service life at the time of Hydro Ottawa's last CIR application (EB-2015-0004).

---

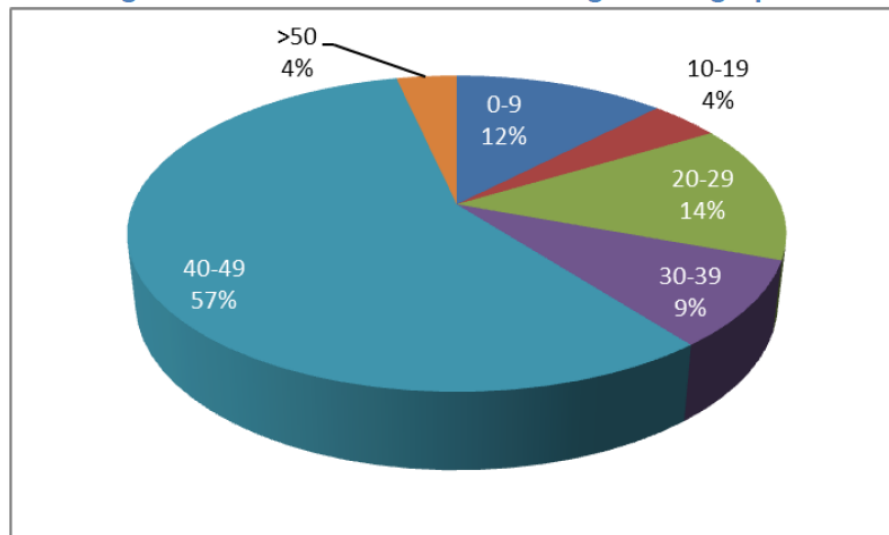
**RESPONSE:**

a) Yes, Hydro Ottawa can confirm the statement is based on the total number of the assets included in the scope of the analysis.

b) The total number of assets included in the analysis is 96,276 assets, as shown on Figure 6.1 of Exhibit 2-4-3: Distribution System Plan.

1 c) Hydro Ottawa's asset age demographics used in its previous application<sup>1</sup> were compiled  
2 as age groupings of the percent of assets within that class and cannot be broken out to  
3 represent in the current application's format. Further, age demographics data for station  
4 relays and overhead distribution switches were not presented in the previous application  
5 and therefore the total number of assets used in the analysis is different. The age  
6 demographics used in Hydro Ottawa's previous application are presented below as they  
7 appeared in Exhibit B-1-2: Distribution System Plan in EB-2015-0004. The expected  
8 service life used in this Application is presented below each figure.

Figure 2.2.8 - Station Transformer Age Demographics

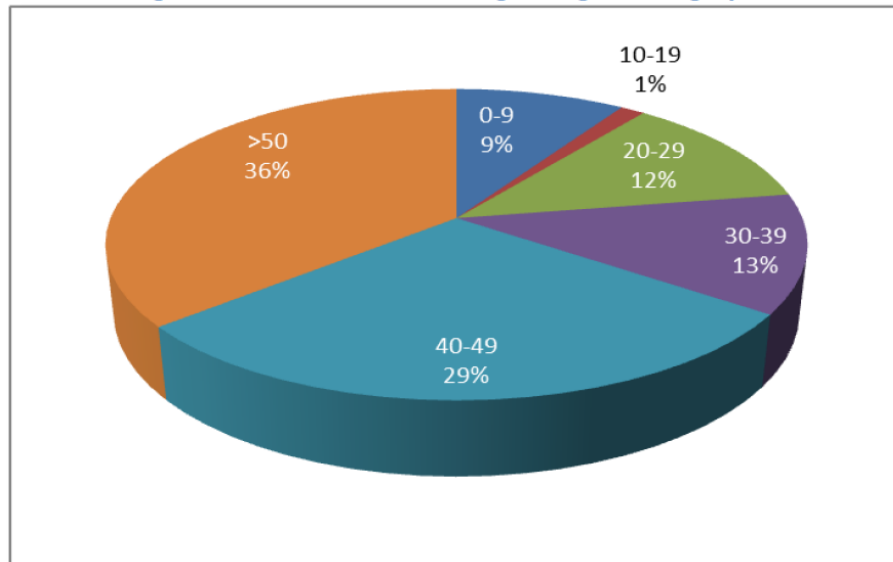


Station Transformer

55 Years

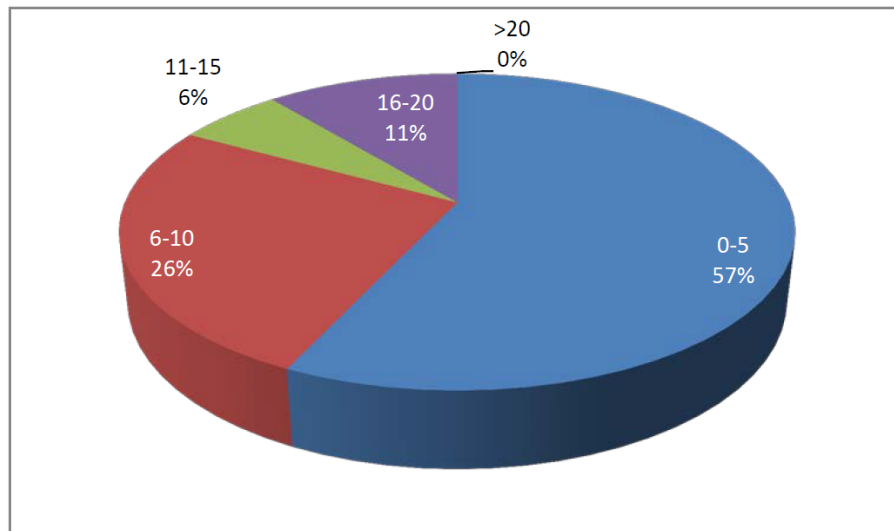
<sup>1</sup> Hydro Ottawa Limited, 2016-2020 Custom Incentive Rate-Setting Distribution Rate Application, EB-2015-0004 (April 29, 2015).

**Figure 2.2.10 - Station Switchgear Age Demographics**



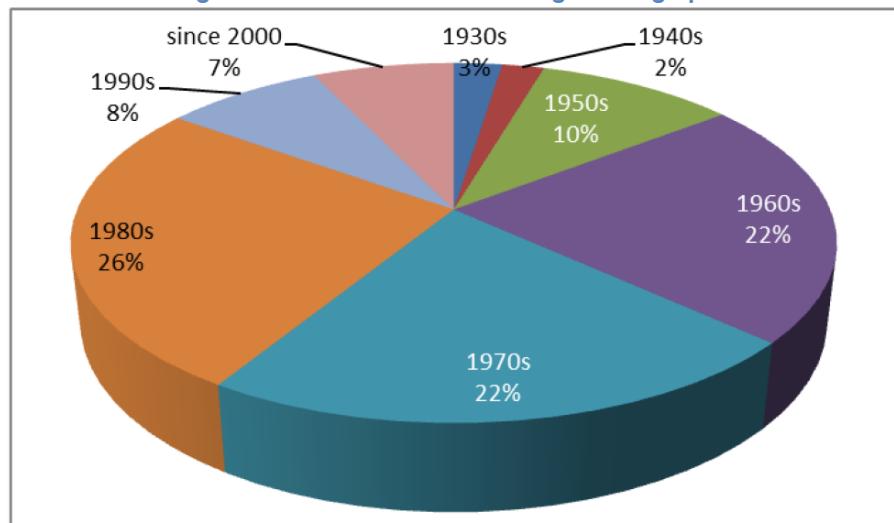
Station Switchgear (Air)	47 Years
Station Switchgear (Oil)	55 Years
Station Switchgear (Gas)	51 Years
Station Switchgear (Vacuum)	46 Years

Figure 2.2.12 - Station Battery Bank Age Demographics



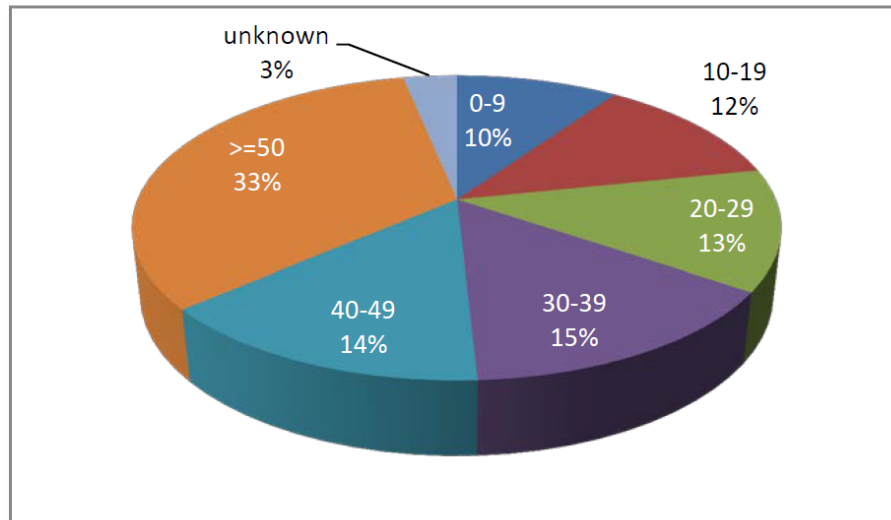
Station Battery (VLA)	25 Years
Station Battery (VRLA)	15 Years

Figure 2.2.13 - Distribution Pole Age Demographics



Wood Poles	53 Years
------------	----------

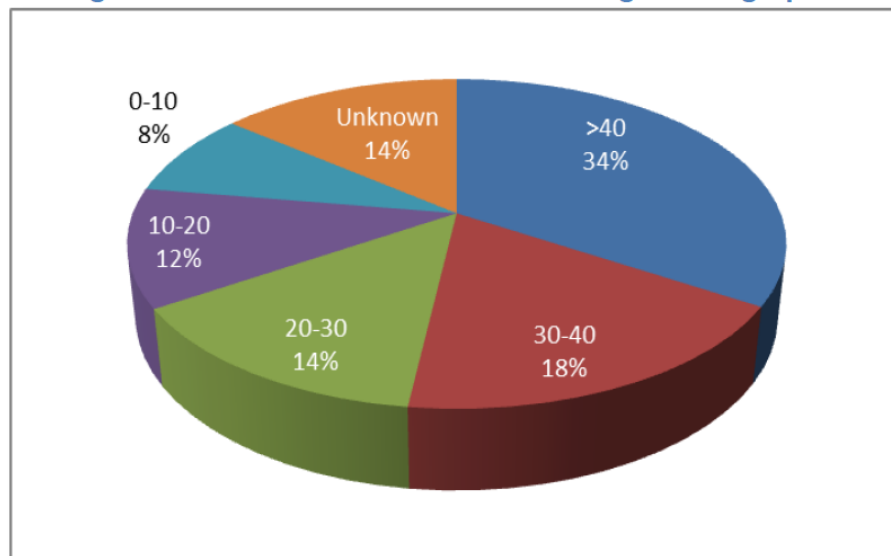
**Figure 2.2.21 - Polemounted Transformer Age Demographics**



Overhead Transformer

53 Years

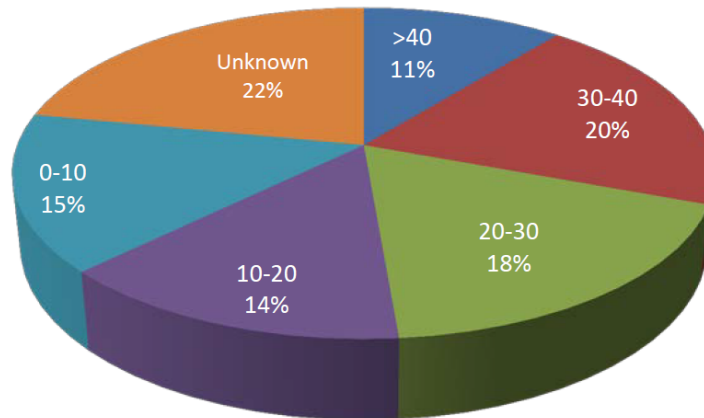
**Figure 2.2.15 - Distribution Cable PILC Age Demographics**



Underground Cable  
(PILC)

62 Years

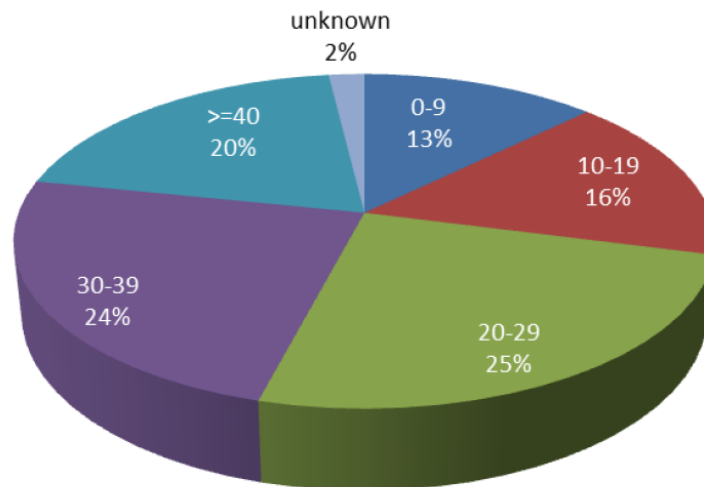
Figure 2.2.17 - Distribution Polymer Cable Age Demographics



Underground Cable  
(Polymer)

45 Years

Figure 2.2.19 - Kiosk & Padmounted Transformer Age Demographics

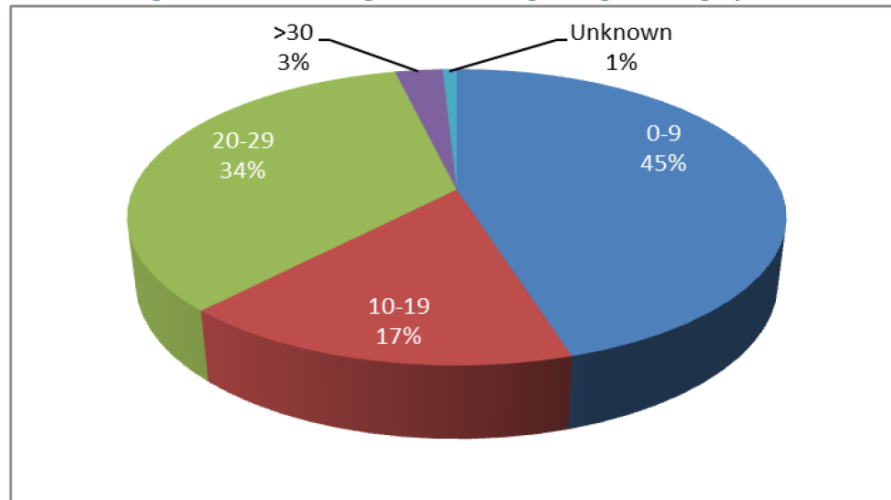


Underground  
Transformer

53 Years

1

**Figure 2.2.25 - Underground Switchgear Age Demographics**



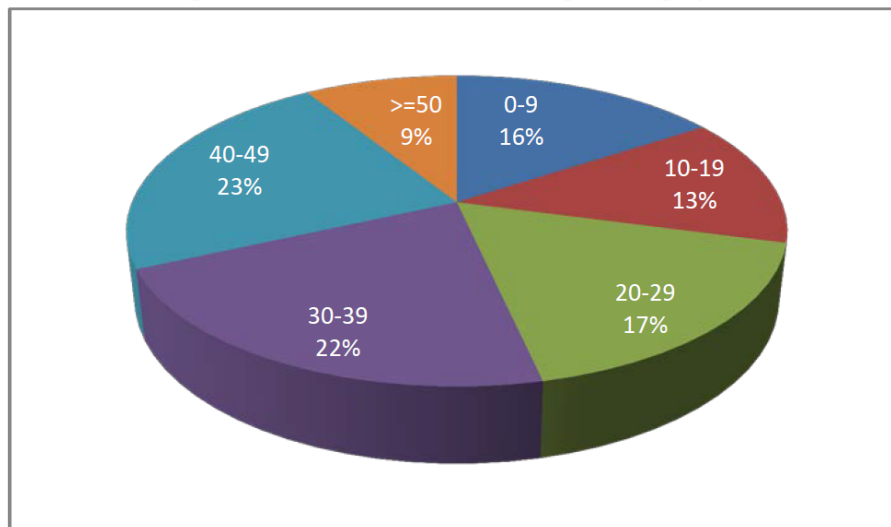
2

Underground Switchgear

25 Years

3

**Figure 2.2.23 - Vault Transformer Age Demographics**



4

Vault Transformer

52 Years

5

Table 2.2.7 - Civil Structure by Type

Civil Structure Type	Pre 1970	Post 1970	Unknown	Total
<b>Cable Chambers</b>	<b>760</b>	<b>2,017</b>	<b>731</b>	<b>3,508</b>
Precast	66	661	159	886
Cast in Place	694	1,284	551	2,529
Unknown/other	-	23	6	29
Pre-Cast Switch Cable Chambers	-	49	15	64
<b>Handholes</b>	<b>9</b>	<b>240</b>	<b>115</b>	<b>364</b>
<b>Sidewalk Vaults</b>	<b>-</b>	<b>34</b>	<b>-</b>	<b>34</b>
<b>Equipment Pad</b>	<b>-</b>	<b>3,300</b>	<b>18,040</b>	<b>21,340</b>
Miscellaneous Pad	-	32	2,164	2,196
Primary Pedestal	-	-	7	7
Secondary Pedestal Pad	-	1,642	2,671	4,313
Service Disconnect Pad	-	38	552	590
Switchgear Pad	-	23	238	261
Transformer Pad	-	1,565	12,408	13,973

Cable Chamber	52 Years
---------------	----------